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ART. I.—*A Case of Uterine Hydatids; their expulsion attended by alarming Hæmorrhage; Recovery.* By ISAAC EDWARDS, M.D., of Leavenworth, Indiana.

Mrs. C——, a married lady, æt. 18 years, of moderately full habit, but pale complexion, commenced menstruating in her sixteenth year, and menstruated regularly for nearly twelve months, the catamenia returning about every twenty-seventh day. In about twelve months after the appearance of the catamenial discharge, she took cold, which resulted in a suppression of the menses for two successive periods. Nature, however, at the end of the third month relieved herself; and from that time the lady had her regular periods, the flow being somewhat diminished, up to the second or third month after marriage. Her health during this time appeared to be very good, with the exception of one or two slight attacks of intermittent fever.

Between the second and third month after her marriage, she suffered a suspension of menses, but as this took place while she was apparently in good health, she and her friends were led to believe that she was in the family way. Afterwards, when I interrogated her more closely concerning her feelings about the time of the suppression, she remembered that about the time, or soon after the last uterine discharge, there commenced a burning pain within the pelvic cavity, which lasted, with intervals of freedom from it, for five or six weeks. This pain, however, was so slight that she had never thought proper to mention it to any one, and in fact she had forgotten it herself.

I was called to see the patient August 25th, and found her laboring under, as I thought at the time, menorrhagia, connected with abortion, but, as I afterwards learned, an affection of a different character.

On inquiry I found that she had been troubled with hæmorrhage for some ten days previously; the first symptoms having occurred not long after she had leaped from a horse, which first produced a watery discharge, followed soon afterwards by a considerable flow of blood from the uterus. She complained at the time of my first visit of a considerable headache and pain in the sacral region; the pain shooting out through the hips and around in front of the abdomen, and meeting on the linea alba. She also complained of pain in the left hypochondriac region. At intervals, these symptoms were accompanied by bearing down pains; but as yet these were not very severe. Considerable nausea attended, and sometimes vomiting. A sanguineo-mucous expectoration, slight laryngitis, with an entire loss of appetite, were additional symptoms. Her tongue was covered with a light yellow fur along its middle; mouth dry; considerable thirst. There was a blush on her cheeks between a scarlet and a purple, together with a pale circle around the eyes and mouth. The body was preternaturally warm; with the hands and feet moderately cool; pulse 105, but compressible; bowels constipated.

I prepared the compound rhubarb pills which I ordered her to take to the extent of opening her bowels.

Aug. 26th. Found the patient much better, with the exception of pains in her back and hips, which had become more distressing since the previous day. I now ordered a cantharides plaster over the seat of the pain, to remain on about three hours. I gave her also a gentle tonic, and no other medicine.

27th. Was sent for to-day in haste; and on arriving was informed that twelve hours previously, my patient had again commenced flooding; and that the hæmorrhage had been so great as to induce syncope several times.

On inquiry, I learned that the blister plaster had been allowed to remain on eight hours, and that strangury was the result, together with considerable bearing down pains.

In hope of still being able to avert an abortion, I administered opium and acetate of lead, and used an injection, *per vaginam*, of the lead solution, together with anodyne enemas.

This treatment relieved the strangury in about twenty-five minutes, and also controlled, to a considerable extent, the hæmorrhage; but this persisted in some degree, being sometimes alarming, during the fore part of the night.

About the middle of the night the bearing down pains returned, and increased so rapidly in strength and frequency that all hope of preventing an abortion was given up.

At 2 o'clock I was for the first time permitted to make a thorough examination. Applying my hand to the abdomen just out of cold water, to ascertain if there were any movements of the fœtus, which the lady assured me she had repeatedly felt, I could not perceive any signs of the presence of a child. The uterus, although it was sufficiently large for the seventh month of utero-gestation, did not feel as if it contained a fœtus, the mass, whatever it might be, feeling soft and spongy; this, however, I thought at the time, might be owing to coagula in the uterus. I endeavored in vain to

discover a fœtal circulation, and concluded, therefore, that if a fœtus was present, it must be dead.

Next, introducing the index finger of my left hand into the vagina, I ascertained that the os uteri had begun to dilate, and was open to about the size of a dime.

Finding all the means prescribed unavailing, and the patient exhausted from such excessive losses of blood, and concluding that the fœtus must be dead, I immediately determined to bring on labor as speedily as possible.

After communicating my determination to the friends, I gave her the secale cornutum in v. grain doses, repeated every fifteen minutes, together with small doses of the sugar of lead. As soon as these means began to act on the uterus, the hæmorrhage was found to cease; but it still returned again as soon as the effects of the ergot passed off, which appeared to be in about twenty or twenty-five minutes after it was given. I therefore kept it up after one or two intermissions. I gradually increased the dose of the ergot in quantity, but extended the intervals to twenty minutes. By the continued action of the remedy upon the uterus, the hæmorrhage was kept in check.

At half past 6 o'clock, A.M., I made another examination *per vaginam*, and found the os tincæ very much dilated; and protruding through it was a mass feeling so much like a placenta, that I told the woman that it was an after-birth presentation. The dose of ergot was increased to ten grains. About 7 o'clock the hæmorrhage returned more copiously, and I saw that unless there was a speedy delivery, the powers of the patient must succumb. Continuing to give the ergot, I now resorted to a stream of cold water upon the naked abdomen as an auxiliary, in the hope that more effectual uterine contractions might be induced. This I repeated several times, having the skin wiped dry after each application, in order to avoid the depressing effects of continued cold.

This had the desired effect; for immediately after the third dash, the uterus expelled the greater part of its contents. I

was of course very much surprised when I lifted the extruded body from under the sheet, to find that it was not a placenta or a fœtus, but a large mass of *hydatids.* They would have filled a half gallon measure. They were attached to what appeared to be, a blasted placenta.

The parent hydatids were three in number; the middle one being much the largest; the uppermost one when in situ being the next largest. The largest one was about the size and shape of a hen's egg. The largest of the three was the only one that appeared to be organized, and permeated by bloodvessels. It was composed of four different sacs; the innermost one was filled with a yellow serous fluid, not unlike the serum of the blood. The other two parent hydatids were similar to the largest. The larger of these two was composed of four, while the smallest was composed of only three sacs, one within the other. But all were filled with a fluid of the same character.

The parisitic, or secondary hydatids, took their origin from the three parents; the largest primitive one giving off three; the next largest, four; and the smallest, one; making eight in number. They were fastened to their respective parents by small pedicles or footstalks. These again gave off a large number of hydatids of all sizes, from that of a buck-shot up; each one being composed of more laminæ or membranes than one; some two, some three, and some four, but none of a larger number.

After these came away I introduced my index and second finger into the womb, by which I was enabled to detach and bring away the small remnant of the placenta which was left behind. I then gave the patient wine whey and sulphate of quinine, under which she gained strength very fast.

She is now enjoying very good health, but has not since menstruated.

December 31st, 1845.

ART. II.—*A Case of Abortion, the Fœtus having been retained four months after its death.* By Dr. THOS. C. OSBORNE, of Erie, Ala.

Mrs. E. W., a highly respectable lady of this place, aged 30 years, of a corpulent and sanguine habit, is the mother of three living children; she suffered an abortion two years ago caused by a stubborn chronic hepatitis. Her health improved from that time until the first of April, 1845, when she became satisfied that she was again pregnant, the evidences of which continued until the first of August, at which time, as she reckoned, she was four months advanced in utero-gestation. At this time, without any appreciable cause, she was attacked with pains in the back, &c., attended with contractions of the uterus, and a slight hemorrhage, of the character and consistence of the menstrual fluid. This condition, which lasted several days, was checked, promptly, by a few portions of acetate of lead and opium; but from the time of the attack until the embryo was expelled, three months afterwards, she never experienced a single symptom of pregnancy, neither was there, during that time, a return of the catamenia. This, together with an astonishing increase of corpulency, gave rise in her mind to the most painful apprehensions. She complained of strange and distressing sensations.

On the 27th of the following November, she discovered what she again thought to be the menses; but as the day advanced, the fluid assumed more the appearance of a hemorrhage, and, severe labor pains coming on, she was obliged to take to her bed. For ten hours the efforts of the uterus were almost intolerable, hardly allowing a minute's intermission from pain. Her strength was nearly exhausted, and although repeated doses of tincture of opium were administered, and copious venesection resorted to, the pains persisted, with alarming obstinacy, until the ovum was expelled.

This, upon examination, presented the following appearances:—Membranes thick, firm, and entire, containing five or six ounces of very turbid liquor amnii, and an embryo of full

four month's development, in a state of incipient putrefaction. The head was large; the eyes, ears, nose, and mouth distinct; the extremities fully formed with the exception of the nails; the genitals very distinct; the entire length of the embryo being about six inches. The funis umbilicalis was 13 to 15 inches long, and arose from one side, instead of the centre, of the placenta. The fœtal surface of the placenta presented nothing further unnatural, but its uterine surface exhibited many abnormal appearances. In diameter it was about three inches; two-thirds of which was occupied by three distinct portions of a cartilaginous or fibro-cartilaginous substance; and the remaining third was taken up by a substance resembling an old clot of blood. Each portion of these masses was separated from the others by a furrow corresponding to the depth of the disease.

The largest, and yellowish portion of cartilaginous substance, was nearly as firm as the cartilage of the ribs. The next to it, was white, but pervaded by a slight tinge of red, and throughout it was the most granular substance I have ever seen. The third was of a dull white color, and felt under the knife like the substance of the mammary gland. The whole diseased surface was about four lines in thickness, and it was under the clotted part that the funis took its origin.

I have but few remarks to make on the above case.

Mrs. W. was certainly pregnant from the first of April to the first of August. She did not then abort, but if she had done so, there was not time, between the first of August and the 27th of November, for another fœtus to have reached such a stage of development as that attained by the embryo in this case. A complete interruption in the nutrition of the ovum must have taken place at the fourth month of gestation, and the disease of the placenta was the growth of the subsequent months.

December 28th, 1845.

REVIEWS.

Art. III.—*Urinary Deposits, their Diagnosis, Pathology, and Therapeutical Indications.* By *Golding Bird, A.M., M.D.*, Assistant Physician to, and Lecturer on Materia Medica at, Guy's Hospital; Licentiate of the Royal College of Physicians; late President of the Westminster Medical Society; Fellow of the Linnean Society of London; Corresponding member of the Philosophical Institute of Basle, of the Philosophical Society of St. Andrews, of the Medical Society of Hamburgh, &c., &c., &c. Philadelphia: Lea & Blanchard. 1845. 8vo. pp. 227.

[CONCLUDED.]

The lungs and kidneys are the great emunctories by which the effete matters of the animal body are eliminated—through the lungs, the matters rich in carbon passing away, in the form of carbonic acid, and by the kidneys, nitrogenised substances, as urea and uric acid, in the human subject. The uric acid of man is replaced in the horse and cow by an acid termed by Liebig the hippuric. Uric acid, according to this eminent chemist, is the first product of the metamorphosed tissues, and becomes urea by a higher oxidation. The acid, having its origin in a deficient supply of oxygen, should be found to exist in excess in diseases which impair the respiratory function, and Liebig states this to be the fact. Some researches, however, in urinary pathology, by Becquerel, render it doubtful. His observations and experiments do not appear to show that there is any fixed relation betwen the urea and uric acid in the urine. In chlorosis, where the blood discs are deficient, and where the urine, in accordance with the theory al-

luded to, ought to exhibit an excess of uric acid, he found it positively and relatively below the healthy average. In phthisis, again, where we should have looked for the full proportion of urea, and the smallest amount of uric acid, consumption being one of the diseases in which the oxidation of the blood is assumed to be excessive, it appears that instead of being 1 to 31, as in healthy urine, the uric acid was 1 to 7, in one case and 1 to 3½ in another.

But we have neither the leisure nor space to pursue these speculative questions, but must refer to the interesting work under review for a satisfactory discussion of them. Excluding all theories regarding the transformation of one excretion into another, we are authorised, in the view of our author, to infer, whenever we find an excess of uric acid or its combinations with bases in the urine, a normal quantity of water being present, (30 to 40 ounces in twenty-four hours,) that one or the other of the following states exists:—

A. Waste of tissue more rapid than the supply of nitrogenised nourishment, as in	Fever, acute inflammation, rheumatic inflammation, phthisis.
B. Supply of nitrogen in the food greater than is required for the reparation and supply of tissue, as in	Excessive indulgence in animal food, or the quantity of food remaining the same, with too little bodily exercise.
C. Supply of nitrogenised food not being in excess, but the digestive function unable to assimilate it:	All the grades of dyspepsia.
D. The cutaneous outlet for nitrogenised excreta being obstructed, the kidney is called upon to compensate for this deficient function.	All or most stages of diseases attended with arrest of perspiration.
E. Congestions of the kidneys, produced by local causes.	Blows and strains of the loins, diseases of genital apparatus.

But the fact most interesting to the physiologist and physician, is the comparative insolubility of uric acid. Whatever prevents the oxidation of this acid, and its consequent con-

version into urea, must be unfavorable to health, as it gives a tendency to calculous deposits, and otherwise injuriously acts upon the system, as pointed out by Dr. Bird in the following passage:

"Uric acid and urates may occur in great abundance in the urine, so as to become serious sources of irritation, and then especially become primary objects of attention as definite diseases. These bodies may be deposited in an insoluble form in the kidney or bladder, and aggregating, form a mass, on which, by a kind of imperfect crystalization, great portions of the acid or its salts may be deposited, giving rise to the formation of a calculus. Uric acid is of more serious importance than most other elements of calculous formations, not only from its constituting a large proportion of all urinary calculi, but even when they are chiefly composed of other ingredients, the nuclei on which they are deposited are, in the great majority of cases, composed of uric acid. In 374 calculi, contained in the museum of Guy's Hospital the nuclei were in 269 composed of uric acid or urate of ammonia alone."

Uric acid does not always form a deposit when it exists in excess, nor does a deposit necessarily indicate the existence of an abnormal proportion of it. It is not difficult to discriminate between these cases, for, in the words of our author—

"If a deposit of urate of ammonia be present whilst the bulk of the urine in twenty-four hours is not much below the average, it is certain that an excess of uric acid exists. But if the bulk of the urine be much below the natural quantity, a deposit may occur simply from there not being sufficient water to hold it in solution. To determine whether an excess does exist, let all the urine passed in twenty-four hours be collected, well shaken, and a given quantity, as about two ounces, mixed in a conical glass vessel with about half a drachm of hydrochloric acid. In six or eight hours crystals of uric acid will be copiously deposited on the sides of the glass; the urine should be decanted and replaced by cold water. By means of a thin spatula or feather, the acid can be detached and collected at the bottom of the vessel. All the water except the last few drops can be readily poured off without losing the precipitate, which can then be removed

into a watch-glass, dried, and weighed. This little operation is so easily performed, that it can scarcely be deemed troublesome; and by a simple multiplication sum, the whole amount of uric acid secreted in twenty-four hours can thus be readily ascertained."

Diet exercises a decided influence on the secretion of this acid, as is happily pointed out by Dr. Bird in the following paragraph:

"The copious deposit of urate of ammonia occurring after eating more freely of animal food than is required for the supply of the wants of the body is a well known phenomenon, and will occur in persons whose digestive organs are in perfect vigor, simply from a greater amount of matter being given them to assimilate than they are adequate to. In like manner, if a person's digestive powers are impaired, either partially or temporarily, as after a debauch, he will be unable to convert into healthy chyle even a small proportion of food, and hence its albuminous elements imperfectly assimilated enter the circulation, to be evolved by the kidneys and perhaps other emunctories. Particular idiosyncrasies with regard to the action of the stomach on certain articles of diet also exist; thus a single cup of coffee or green tea will, in many persons, determine the formation of a deposit in the urine, as if the caffein present in these two beverages had escaped the digestive powers of the stomach, and become converted into urate of ammonia."

The uric acid deposits are recognized by the following characters:

"When heated in the urine, the uric acid deposit does not dissolve; the crystals merely become opaque. It generally becomes more distinct from the solution of urate of ammonia, which is frequently mixed with it, and sometimes completely conceals it from view. Hence the best mode of discovering this deposit, is to warm urine, turbid from excess of urate of ammonia, in a watch-glass; the acid becomes visible in the centre of the glass, as soon as the urate dissolves. Heated with liquor potassæ, the uric acid deposit dissolves, from the formation of an urate of potass of sparing solubility. Hydrochloric and acetic acids are without any action, but the nitric readily dissolves it, and by careful

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evaporation a residue of a beautiful pink color becoming of a rich purple, on being held over the vapor of ammonia, is left. This colored residue is the murexid of Liebig, the purpurate of ammonia of Dr. Prout. Exposed to heat in a platinum spoon, the uric acid deposits burn, evolving an odour of bitter almonds; and finally leave a small quantity of a white ash, which generally contains phosphate of soda or lime."

The two great points, in the treatment of uric acid gravel, are attention to the function of the skin, and restoration of the tone of the digestive organs. Suppression of the cutaneous excretion is found sensibly to increase the uric acid deposit, and the use of diaphoretics to diminish it. The influence of digestion upon the secretion of the acid has been alluded to, and in correcting the morbid action, the function of the stomach must be kept in view. Diet is the most important measure, and of this, our author says, the patient must use such as he can best digest, "it being of greater importance, in the majority of cases, to regard this, than to choose articles of food according to their chemical composition."

Of remedies which act as solvents of uric acid Dr. Bird makes mention of a number; among the rest, of soda and potassa, and, in the following terms, of phosphate of soda:

"The remarkable solvent action of phosphate of soda on uric acid, to which Liebig has lately directed attention, inspires a hope that its administration might be of use in cases of calculous disease, by impregnating the urine with an active solvent. All that is required to ensure this drug reaching the urine is to administer it in solution sufficiently diluted; ℈j. to ℥ss. might be administered in any vehicle, as in broth or gruel, as when diluted, the phosphate tastes like common salt, and few persons object to its flavor. I have administered this drug in two very chronic cases of uric acid gravel, and in one with the effect of rapidly causing a disappearance of the deposit. This occurred in the person of a lady about forty years of age, who had, at my wish, for some weeks used the artificial Vichy water of the German Spa at Brighton without relief. The triple salt, ammonio-phosphate of soda, would perhaps be a more active remedy than the simple phosphate, but

its disagreeable flavor constitutes one objection to its employment."

The benzoic acid appears to have some claims upon the practitioner as a solvent of uric acid deposits. We quote our author's remarks concerning it:

"Much attention has been lately drawn to the effects of benzoic acid in preventing the formation of uric acid, by the observations of Mr. Alexander Ure. When this acid or its salts are administered, they are acted upon by the stomach in a very different manner from the other vegetable acids. Instead of becoming oxidized, and being converted into carbonic acid, it combines with those nitrogenised elements which would otherwise have formed urea or uric acid, and is converted into hippuric acid. It has been stated that the quantity of uric acid falls, when the benzoic acid is administered, below the average quantity, or even disappears from the urine. This has been, however, shown by Dr. Garrod, to be an error, and that urea alone disappears. Be this as it may, it is certain that the acid does appropriate to itself some body rich in nitrogen to form hippuric acid; and experience has shown that, in cases where an excess of uric acid is secreted, the administration of this drug appears to limit it to about the normal quantity."

He prescribes it in doses of eight or ten grains in syrup, or dissolved in a weak solution of carbonate or phosphate of soda thrice a day. The following formula he has found of great service in several cases of chronic uric acid gravel:

℞. Sodæ Carbonatis, ʒjss.
Acidi Benzoici, ϑij.
Sodæ Phosphatis, ʒiij.
Aquæ Ferventis, fʒiv. solve et adde.
Aquæ Cinnamomi, fʒvjiss.
Tincturæ Hyosciami, fʒiv.
Fiat mistura, cujus sumet æger, coch. ij. amp. ter in die.

The next form of urinary deposit mentioned by our author is the *uric oxide*, termed by others *xanthic oxide*, which, however, is so rare a constituent of calculous concretions

that we need not stop to speak particularly respecting it. The resemblance between this oxide and the uric acid is so close that much care is required to distinguish between the two deposits; but this is a matter of the less consequence since the indications of cure are the same in each.

Purpurine is another pathological product of the kidneys, and is worthy of notice on account of the serious lesions of the liver or spleen, which its presence frequently indicates. It is so soluble in water that it never occurs as a deposit in urine, unless urate of ammonia is present; when this is the case, the ammonical salt assumes a more or less deep carmine tint. To appreciate the beauty of these tints, the deposite must be dried on a filter. Its appearance when so collected, together with its giving up the purpurine to alcohol, will distinguish it from blood, for which it has occasionally been mistaken. The characters of urine containing purpurine are thus given:

"It invariably happens that when an excess of urate of ammonia is present, it, on the urine cooling, falls to the bottom of the vessel, carrying down with it great part of the purpurine. If this excess be not present, the urine simply presents a pink or purple color, and on dissolving white and pure urate of ammonia in it by heat, it is precipitated on cooling deeply colored by the purpurine. If a small portion of purpurine only is present, it is best detected by adding a little hydrochloric acid to some of the urine previously warmed, a color varying from lilac to purple, according to the quantity of coloring matter present, immediately occurs.

"On evaporating urine containing purpurine to the consistence of an extract, and digesting it in alcohol, a fine purple tincture is obtained, the intensity of the tint being rather heightened by acids and diminished by alkalies.

"The specific gravity of this urine is subject to great variation: when the color is as deep as brandy, its density varies from about 1.022 to 1.030. The addition of nitric acid generally produces an immediate muddy deposit of uric acid, which has been more than once mistaken for albumen."

Another substance, now and then found in urinary sediments, and which enters into the composition of a rare spe-

cies of calculus, is *cystine*, the diagnosis of which is fully pointed out in the volume of Dr. Bird. The urine containing it is very turbid, and soon deposits a copious sediment, not affected by heat, and only slowly dissolved in nitric or muriatic acid; insoluble in the vegetable acids, but soluble in the fixed alkalis and their carbonates, and burning in a platina spoon with a peculiar and disagreeable odor. From urate of ammonia it is distinguished by not disappearing on warming the urine, and from the earthy phosphates by being insoluble in dilute muriatic or strong acetic acid.

The treatment in cases of this morbid secretion is not well understood. Most is to be done by attention to the health of the assimilative functions.

Dr. Bird has been led to question the accuracy of the opinion, according to which *oxalate of lime* is a very rare urinary deposit. He has met with it frequently, and holds it to be connected with certain nervous maladies which abound in populous cities. The digestive organs are deranged in those individuals who afford this deposit, and it is strikingly increased or diminished by particular kinds of food. It is, therefore, especially amenable to dietetic regulations. The symptoms attending it are described in the following words:

"Persons affected with the disease under consideration are generally remarkably depressed in spirits, and their melancholy aspect has often enabled me to suspect the presence of oxalic acid in the urine. I have seldom witnessed the lurid greenish hue of the surface to which Dr. Prout has referred. They are generally much emaciated, excepting in slight cases, extremely nervous, and painfully susceptible to external impressions, often hypochondriacal to an extreme degree, and in the majority of cases labor under the impression that they are about to fall victims to consumption. They complain bitterly of incapability of exerting themselves, the slightest exertion bringing on fatigue. In temper they are irritable and excitable; and in men the sexual power is generally deficient, and often absent. A severe and constant pain, or sense of weight, across the loins, is generally a prominent symptom. The mental faculties are generally but slightly affected, loss of memory being sometimes more or less pres-

ent. Well-marked dyspeptic feelings are always complained of. Indeed, in most of the cases in which I have been consulted, I have been generally told that the patient was ailing, losing flesh, health, and spirits, daily; or remaining persistently ill and weak, without any definite or demonstrable cause."

We come next to the consideration of the *earthy salts* of urine—phosphate of lime, ammonio-phosphate of magnesia, and carbonate of lime, the account of which in this volume is full and instructive. They occur in consequence of a deficiency of acid in the urine, as carbonate of lime is deposited on the escape of carbonic acid halding it in solution, and, indeed, it seems that "where phosphate of lime forms the great bulk of a deposit, a certain portion of carbonate is generally present."

The details on this subject are too numerous to be embodied in the limits within which we must confine ourselves, and for all that relates to the diagnosis and treatment we must therefore refer our readers to the work itself.

Until lately, *carbonate* of lime, although of constant occurrence in the urine of herbivorous animals, was not believed to enter into the composition of any urinary calculi in the human subject; but it turns out, that this substance often occurs in small quantities mingled with the earthy phosphates, and is more apt to be present when the urine is decidedly alkaline. Its origin, according to Dr. Bird, "may then be explained by a decomposition of phosphate of lime by the carbonate of ammonia which replaces the urea." It then appears simply as an amorphous powder, and may easily be recognized by its effervescence with any dilute acid, the carbonate of ammonia having been carefully washed out by warm water.

The urine is subject to discoloration, not only by blood and bile, but by various products of diseased action, among which are enumerated, cyanourine, indigo, per-cyanide of iron, melanourine, and melanic acid, from which it receives blue or black tints more or less intense. But as the presence of such

matters is not frequent their diagnosis and pathology need not detain us.

The following chapter is one of the most interesting in the volume, embracing *non-crystalline organic deposits*, such as albumen, hæmatosine, pus, mucus, milk, fatty matters, &c. These substances are to be detected by the microscope, other tests being comparatively unavailing. This remark, however, is not applicable to *albumen*, which gives an opacity to urine on the application of heat. If it be abundant, the urine will become quite solid when so treated, and the opalescence will vary according to the quantity present in the urine. Nitric acid also coagulates albumen, and if these tests concur, its presence is no longer doubtful. The two ought always to be applied in conjunction.

When blood is present in urine, that fluid is more or less discolored, according to the quantity, and as albumen is one of the constituents of the blood, it will be found that the urine under such circumstances is coagulable by heat and nitric acid; but in order to render the diagnosis clear, in doubtful cases, the microscope must be applied. In reference to the treatment of hæmaturia Dr. Bird says—

"No remedy has, however, appeared to me to be of such extraordinary value in the treatment of hæmaturia as gallic acid. I have seen this drug arrest for many weeks bleeding from an enlarged (and fungoid?) kidney, after all other remedies had failed. It should be given in doses of five grains in a draught, with mucilage, and a little tinct. hyoscyami, and repeated at short intervals. This drug really acts as a direct astringent, reaching the capillaries of the kidney, and finding its way into the urine, which soon becomes so impregnated with it, as to be changed into ink on the addition of a few drops of tinctura ferri sesqui-chloridum."

Milk, it appears, has never been detected in the urine as a morbid element, but is sometimes present as a fraudulent admixture. The milk-like urine often seen, derives its appearance from phosphatic, purulent, or fatty secretions mingled with it. Still, Dr. Bird concedes that some of the ingredi-

ents of milk may be contained in the urine of pregnant women, having been taken into the circulation from the mammary glands. *Kiestein* is the name proposed for the matter detected in such cases; and *gravidine* has also been suggested, but Dr. Bird is not satisfied of its being a distinct organic principle.

Spermatozoa are by no means very unfrequent in urinary deposits, in some cases imparting to the urine their characteristic odor.

"Should a larger quantity of the secretion be present, it subsides to the bottom of the vessel, and may be recognized by its physical character. If mere traces of spermatic liquor only are mixed with urine, they may easily be detected by violently agitating, and allowing it to repose in a conical glass vessel for a few hours. On carefully decanting all the urine except the last few drops, the spermatozoa may be detected in the latter by the microscope."

From a series of observations recently made, there is strong reason to believe that fermentation is attended, if not produced, by the appearance of certain confervoid or fungoid vegetations, which pass through regular stages of development. When the urine contains sugar these vegetations make their appearance. The account given by our author of these appearances is highly curious. He states that—

"When saccharine urine is left in a warm place, a scum soon forms on its surface, as if a little flour had been dusted upon it. This consists of minute oval bodies which soon enlarge from the development of minute granules visible in their interior. These continue expanding, and dilate the oval vesicle containing them into a tubular form; soon afterwards the internal granules become larger and transparent, and project from the exterior of the parent vesicle like buds. The whole then resembles a jointed confervoid growth, which ultimately breaks up; and a copious deposit, of oval vesicles or spores, falls to the bottom. All these stages of development require but a few hours for their completion. If the deposited spores be placed in weak syrup they rapidly germinate, and exciting fermentation, produce a new crop of torulæ. During the growth of the torula, bubbles of carbonic acid gas are evolv-

ed, and the urine at length acquires a vinous odor, sometimes accompanied by an odor of butyric acid."

And, "still they come;" not only *torulæ*, these little mushroom plants, but *vibriones*, minute animalcules, "are occasionally developed in the urine, so soon after passing as to lead to the idea that their germs must have existed in the urine whilst in the bladder."

In the concluding chapter, at which we have arrived in our cursory notice, Dr. Bird makes some judicious practical remarks on the therapeutical employment of remedies influencing the functions of the kidneys. These remedies have been often complained of by writers as capricious and uncertain in their action, and the complaint is just, as practitioners too well know. But there is a cause for this variableness in the action of diuretics, and without stopping to inquire into the nature of it, we quote from our author certain laws deduced from the recorded experience of the medical profession, the observance of which will enable us to predict with a great degree of certainty what will be the effect of these therapeutic agents:

"*Law* 1*st.* All therapeutical agents intended to reach the kidneys must either be in solution when administered, or capable of being dissolved in the fluids contained in the stomach or small intestines, after being swallowed."

"*Law* 2*d.* Bodies intended to reach the kidneys must, to ensure their absorption, have their solutions so diluted as to be of considerably lower density than either the liquor sanguinis, or serum of blood (i. e. below 1.028)."

"*Law* 3*d.* 'If a sufficent quantity of water cannot be received into the small intestines, or the circuit through the portal system in the vena-cava ascendens, or thence through the lungs and heart into the systemic circulation, be obstructed, or if there be extensive disorganisation of the kidneys, the due secretion of urine cannot be effected.' "

The following practical conclusions should be appended to the foregoing laws:

"1. Whenever it is desirable to impregnate the urine with a salt, or to excite diuresis by a saline combination, it must be exhibited in solution, so diluted as to contain less than 5 per cent. of the remedy, or not more than about twenty-five grains in an ordinary draught. The absorption of the drug into the capillaries will be ensured by a copious draught of water, or any diluent, immediately after each dose.

"2. When the urine contains purpurine, or other evidence of portal obstruction exist, the diuretics or other remedies employed should be preceded or accompanied by the administration of mild mercurials,—taraxacum, hydrochlorate of ammonia, or other cholitic remedies. By these means, or by local depletion, the portal vessels will be unloaded, and a free passage obtained to the general circulation.

"3. In cases of valvular or other obstructions existing in the heart and large vessels, it is next to useless to endeavor to excite diuretic action, or appeal to the kidneys by remedies intended to be excreted by them. The best diuretics here will be found in whatever tends to diminish the congested state of the vascular system, and to moderate the action of the heart; as digitalis, colchicum, and other sedatives, with mild mercurials."

The reader who wishes to study the subject of urinary deposits by the best light of modern science, will avail himself of the aid offered in the pages of this work. It must take precedence of all the treatises on that subject.

ART. IV.—*Elements of Pathological Anatomy;* Illustrated by colored engravings and Two Hundred and Fifty Woodcuts. By SAMUEL D. GROSS, M.D., Professor of Surgery in the Medical Institute of Louisville; Late Professor of Pathological Anatomy in the Medical Department of the Cincinnati College; Surgeon to the Louisville Marine Hospital, etc., etc. *Second Edition, thoroughly Revised and greatly Enlarged.* Philadelphia: Ed. Barrington & Geo. D. Haswell. Louisville: James Maxwell, jr. 1845. Super-royal 8vo. pp. 822.

[CONTINUED FROM PAGE 48.]

In our last number we followed the author through the chapters on inflammation and the effusion of serum; we proceed now to notice some of the remaining conditions and consequences of the inflammatory process.

CHAPTER IV.—*Lymphization.* The effusion of lymph, according to the author, like that of serum, is invariably of in-

flammatory origin; so invariably that "it may be assumed as a general proposition, than which there is none more satisfactorily established in pathological science." Except the followers of Macartney, few at the present day will deny this. Yet like as with serum, it is often the only symptom to be met with after death. In arachnitis large quantities are often poured out, though not the slightest redness, thickening, or opacity, can be discovered. Its appearance is not uniform, but may be modified by a variety of circumstances.

"In general, it is transparent, and of a white, yellowish-white, or opaline tint; but it may be opake, cineritious, milky-white, or reddish. In jaundice, I have seen it of a pale yellowish hue, from the presence of the coloring matter of the bile. At first it is very soft, semi-liquid, or almost diffluent, and so viscid that it may be drawn out into thin filaments; but it gradually increases in consistence, assumes a retiform arrangement, and feels very much like a mass of cobwebs moistened with water. When sqeezed, it yields a small quantity of fluid identical with the serum of the blood."—46.

Its microscopical characters as depicted by Gulliver, are given by the author, but as they are almost unintelligible without the accompanying cuts, we make but the following extract:

"Under the microscope, the mass of lymph is found to be composed of a great number of globules, connected together by a transparent matrix, and pervaded by exceedingly minute granules. The globules are of the same size as those of pus, and are at first very loose in their texture, but become gradually more dense and compact. In many cases, the substance consists of delicate fibrils, straight, transparent, running parallel with each other, and interspersed with small granules." —46.

Like other secretions, lymph is separated from the blood by a peculiar process; in chemical composition it is essentially the same wherever it occurs, and is similar to, if not identical with, the fibrin of the blood. It is now known that the

quantity of fibrin in the blood is increased during inflammation, generally in direct proportion to the intensity of the morbid action.

Effused at first in globules, which become confluent, this substance assumes various forms, governed in some measure by that of the part producing it. In the mucous cavities, as the larynx, it sometimes moulds itself upon the part; in the peritoneum it is seen in bands and films; in the pleura it occurs in lamina or sheets; in the cellular tissue its shape is irregular. Likewise it varies in amount. The non-assimilative structures, as the serous sacs, appear to furnish it most abundantly. It is produced less abundantly and far less readily by the mucous membranes, though the mucous lining of the respiratory and intestinal tubes sometimes furnish it in large quantity. It is observed in the uterus and the œsophagus; it causes obliteration of the bronchia, fallopian tubes, and biliary ducts, stricture of the urethra, adhesion of the vagina, and closure of the lachrymal canal. It is furnished readily by the inner coat of the arteries, less by that of the veins; it is yielded sparingly by the skin and absorbents, the muscles and fibrous membranes, the tendons and ligaments, the cartilages and bones. Of the viscera, those furnish it most abundantly in which there is the greatest amount of loose cellular tissue.

The deposition of lymph takes place soonest when inflammation is most intense; it is also influenced, as we have just seen, by the nature of the affected part. The author has seen it covering the pleura and peritoneum nine hours after a gun-shot injury; Thomson observed it in the inferior animals four hours after the infliction of a wound; and in some cases it is thought to begin with the inflammation itself.

This effusion, wherever it occurs, may sooner or later become organized, endowed with bloodvessels, with absorbents, and by inference with nerves; may secrete, and absorb, and nourish itself; may, under the inflammatory state, pour out serum, tubercles, lymph, pus, and blood—in short, it may do all

those acts and things which distinguish an original part of the living body.

This organization takes place most readily in connection with the serous sacs, the skin, cellular tissue and bones, and not at all, or only after long contact, in the mucous canals. It is not always the most intense inflammation which is most favorable to it, but rather the slow, moderate action. In the former case, it would seem that this substance is not well elaborated, or is furnished in such large quantity that a portion degenerates into pus. In certain inflammations, as erysipelas, lymph is readily effused, but it is ill-elaborated, of weak vital power, and the pus subsequently poured out is not walled about by it as in phlegmonous inflammation, but is diffused among the tissues causing an immense degree of mischief. The same thing occurs in connection with poisoned wounds, in many of which the exciting cause produces rapid deterioration of the blood, and consequently the lymph secreted from it is of a degenerate character. In other inflammations of a low form, occurring in certain states of constitution, attended by poor or watery blood, the organization of the effused matter is imperfect; it is liable to ulterior changes—contraction, shrinking—to softening, from inflammatory reaccession—and these changes are the source of injury to the surrounding parts.

The vascularization of lymph may take place in a few hours from the time of its commencement, or occupy several months. Home injected an artery and vein in some lymph, twenty-four hours after its effusion. The mode in which it is produced, has given rise to a good deal of discussion. According to one opinion, blood corpuscles escape from the adjacent original vessels, and after oscillating for a time in the effused lymph, shoot across and join the return veins; through the channel thus formed other corpuscles follow in a continuous stream, establishing its circulation; and from this first channel others are formed in a similar mode. The other opinion supposes the lymph to have a self-organizing power, by virtue of which it creates its own bloodvessels. We have already alluded to the microscopical characters of

lymph when first effused. Its spontaneous coagulation is one step towards vascularization. In this state it presents numerous fibrils crossing each other in various ways, mixed with "exudation corpuscles" simple and compound—the former consisting of groups of granules and molecules; the latter, of cells with nuclei and nucleoli (granules and molecules). This is already a species of organization, and it may advance to a higher grade, or it may degenerate. When the former occurs, it is supposed (for the process is not exactly ascertained) that the compound exudation corpuscles (the cells with nucleoli) called nucleated cells, arrange themselves linearly, elongate, and form a communication by decadence of the opposing walls; in the channel thus formed the central or contained nuclei first oscillate, then are moved forward by the heart's impulse received through the neighboring vessels, and finally enter the general circulation. The nuclei are succeeded by blood corpuscles escaped from the adjoining capillaries, and thus, as before, canals are formed continuous with the original vessels. Others attribute to the lymph the power to form its own blood as well as bloodvessels, like the germinal vesicle of the embryo. The author gives the following account of the changes which take place whilst this self-organization is going on, without reference to the modern cell-theory:

"The primordial traces of the organizing process consist, according to the theory under consideration, in the appearance of a few red dots, which have been happily compared to the 'salient point' in the vitelline membrane of the chick, the fibrin being endowed, as was before stated, with a similar property of generating blood. Red furrows, streaks, or lines, are sometimes perceived, shooting out in various directions, which gradually assume the character of distinct vessels, in every respect analogous to those in other parts of the body. In other cases the small sanguineous trains take on a ramiform arrangement, and are ultimately converted into real vascular tubes. At an early period of their development, these trains are found, according to Laennec, to contain minute filaments of fibrin, permeable at their centre, which soon assume a cylindrical shape, and thus constitute the rudiments of the

future vessels. These new channels, composed both of arteries and veins, the latter of which, however, predominate as well in volume as in number, gradually extend towards the neighboring parts, with the capillaries of which they finally inosculate, the blood passing freely from the one to the other. In their mode of arrangement, many of these vessels resemble the vena portæ; that is, they consist each of a single trunk, usually of considerable length, from each extremity of which are detached a certain number of branches, twigs, and filaments."—49.

Has this organized matter nerves and absorbents? The existence of both might be inferred from the fact already stated that false membranes perform the functions of secretion, absorption, and nutrition. The *absorbents*, however, have been demonstrated by Van der Kolk, who succeeded in injecting them with quicksilver.

The lymph thus organized forms the basis of the *analogous* tissues; and "by it wounds unite, bones knit, and arteries are consolidated." Upon its susceptibility of organization, and the capability of tissues to produce it, are founded many of the improvements of modern medicine and surgery. The tying of arteries for aneurism, the treatment of incised wounds, whether made by the surgeon or otherwise, and the different auto-plastic operations, are all based upon a knowledge of this wonderful power of organization. Indeed it may be said generally that when the practitioner knows the *habitudes* of the different tissues and organs in a state of inflammation, their liability to this or that effusion, whether serum, lymph, pus, or blood, he has gained a vast step in the way of prognosis and treatment. For example, if the surgeon have a wounded intestine he knows it will be useless to attempt a union of the two mucous surfaces; for morbid anatomy teaches the general truth, that mucous membranes are indisposed to the production of organizable lymph; but that between the two serous surfaces he may get a speedy and safe union. So with the physician: if he have to deal with an inflamed larynx, morbid anatomy teaches him that the danger consists in a closure of the glottis by an effusion of serum into the sub-mu-

cous cellular tissue; if it be the trachea which is inflamed, that the danger arises from the effusion of lymph upon the mucous surface. We might bring forward other instances, but it would lead us too far, and besides they will suggest themselves to the mind of the reader.

A third product of inflammation, indicating a degree beyond that in which lymph is produced, is pus. In reference to the origin of this matter, the author says emphatically, that "*the formation of pus, in whatever part of the body occurring, is invariably the result of inflammatory action, either acute or chronic, simple or specific.*." Among the viscera, the lungs, liver, and kidney present pus most frequently; among the tissues, the cellular, cutaneous, mucous, and serous. All parts of the serous and mucous systems are not equally liable to it. As to the former, suppuration occurs most frequently in the pleura, the vaginal tunic of the testicle, and the serous linings of the larger joints. In the mucous system, it is much more frequent in the colon, than in the stomach or ileum, in the vagina than in the uterus, in the urethra than in the urinary bladder, in the nose than in the mouth, in the fauces than in the œsophagus, in the bronchiæ than in the larynx. The blood-vessels do not often suppurate, but the lymphatic system is frequently affected. Pus is deposited at first in globules; by softening and disintegration of intervening tissues, these become confluent, constituting abscesses; of these our author speaks of three kinds: the *acute*, the *chronic*, and the *metastatic*. The time required for the formation of an acute abscess depends upon a variety of circumstances; in the viscera from twelve to fifteen days; in the sub-cutaneous cellular tissue, less than a week, sometimes less than two days. Acute abscesses are rarely found in the lungs, brain, spinal cord, and spleen, death occurring before they have time to form. Situated externally, they tend toward the surface of the body; whereas visceral abscesses open into a splanchnic cavity, or into some hollow organ. The matter is often enclosed by a layer of organized lymph, called by Delpech the *pyogenic membrane*, varying in thickness from a fraction of a line to several lines, smooth and

glistening, sometimes villous and granulated internally, and rough and flocculent externally.

In chronic abscesses the collection forms slowly, often unaccompanied by pain, heat, &c; whence the name *cold* sometimes applied to them. The cyst surrounding them, is of a dense fibrous or fibro-cartilaginous texture, often of considerable thickness. They are generally connected with the scrofulous diathesis, and occur most frequently in the sub-cutaneous cellular tissue, the lymphatic ganglions, and the dorso-lumbar portion of the spine. When the matter passes from one part to another it constitutes the *congestive abscess.* The *metastatic* variety affects most frequently the viscera, and of these, according to Dance, the lungs and liver, then the spleen, then the brain, heart, and kidneys. The number varies from one to many hundreds; the size—inverse of the number—varies from a hemp-seed to an orange. The contents of this abscess, especially when recent, are almost always semi-concrete, of a dirty greyish, or drab color; when of longer standing, they are more decidedly purulent. The surrounding parts may be healthy, but are generally altered in appearance, being engorged, discolored, softened, or converted into a pulpy substance; the coats of the vessels exhibit the marks of inflammation, in which the capillaries participate. These abscesses follow severe wounds, especially of the head; capital operations; compound dislocations and comminuted fractures; they occur also in the puerperal state, and after phlebitis, erysipelas, typhoid fever, &c. Their formation goes on stealthily, and generally requires from ten to fifteen days. "The most prominent symptoms are, violent rigors, usually paroxysmal in their character, delirium, stupor, prostration, and general insensibility." As to the cause of these collections, our author believes, with Cruveilhier and others, that they are the result of phlebitis, and that they may occur independently of suppuration in the organs which sustained the primary mischief.

With the appearance of pus—*healthy* or *laudable*, as it is called, as well as the *sanious*, the *fibrinous*, the *scrofulous*—the

reader is doubtless familiar. The microscopical characters of pus are not unimportant. It consists of opake corpuscles suspended in a thin transparent liquor, mingled with more or less of the softened and disintegrated tissues of the part where it is formed. The characteristic pus globule consists of a spherical and externally rough envelope, composed of fibrin, containing two or three opake and exceedingly minute spherical granules, and some fluid. These globules are something larger than the red particles of the blood, and are evidently the exudation corpuscles, which, instead of undergoing further development, have degenerated. The author gives a full account of the analysis of pus by different individuals; from all which it seems to contain every element of the blood except the coloring matter. Purulent matter is frequently *contagious;* but to the eye in such cases it does not differ from that of common inflammation. Animalculæ have been observed in the matter of chancre, and in that from cancerous ulcer.

Pus, according to Gendrin and others, is sometimes an intra-vascular formation; if so, it must pass out of the vessels ere yet it takes on the globular form and while still granular, as the pus corpuscle cannot escape otherwise than by rupture of the vessel. It is sometimes absorbed; large abscesses are thus got rid of; in this case, again, the pus corpuscles must recede to the granular state, as, without rupture of a vessel, they can no more pass in than out. The fibrin of the pus thus absorbed seems to be unfitted for further use in the economy, and is eliminated through the kidneys.

Hemorrhage, which makes the subject of the fifth chapter, next claims our attention. Hemorrhage occurs under two very opposite conditions of the system: one a state of vascular repletion, or plethora, which it so often relieves; the other, and most frequent one, a state of anæmia, when blood is small in quantity and poor in quality. The morbid alteration of the blood which most frequently accompanies hemorrhagic effusions, is, according to Andral, diminution of the quantity

of fibrin. Hemorrhage is most frequent in the mucous, cellular, and serous systems; and in the mucous system, is most frequent in the large bowel, then in the stomach, then in the ileum. Of the viscera, the brain and lungs are by far the most often affected. Hemorrhage occurring in the interior of a part is termed *extravasation.* The word *apoplexy*, formerly applied to effusions in the brain, is now used in reference to all extravasations.

When speaking of inflammation it was seen that a period came when the distended and softened coats of the vessels gave way, allowing the blood to escape in mass. Unquestionably rupture of the vessels is much the most common cause of hemorrhage, whether accompanied by inflammation or not. It is thought, however, that the blood may be secreted—exhaled—that is, pass out of the vessels by a sort of vital "endosmose, diapedesis, or transudation."

"Analogically," says the author, "it may be inferred that the blood vessels are in a state of morbid activity, whereby fluids are suffered to escape that were appointed to be retained; or it may be supposed, as we have reason to believe is often actually the case, that the capillaries, being in a state of debility and relaxation, have their pores rendered unnaturally patulous, and thus allow the blood to have a more ready egress."—64.

What sort of "morbid activity" this is, we do not exactly understand. Any activity of which we can conceive, would be directly opposed to transudation, whether vital or mechanical. That there is a loss of tone by the capillaries in many hemorrhages, we can readily understand. Still, as in the case of pus, in the present state of our knowledge, it is impossible to see how the unchanged blood particles can escape from the unruptured vessels. In the frog, Williams (*Outlines Path.*, Amer. Ed., p. 195) states that he has seen the red particles roll up like a rice wafer previous to passing through the walls of the vessels. Does an analogous change of form occur in human blood? Red particles are to be seen in the fluid poured out in many cases of hemorrhage; but may not these escape from rupture of some of the smaller vessels,

whilst the great bulk of the so called blood consists of the liquor sanguinis and the coloring matter? But we will not pursue this subject any further.

The disposition to hemorrhage may be *hereditary*. Sometimes it affects all the male or female descendents for several generations; in other instances it disappears in one generation and re-appears in another, affecting indifferently both sexes. Hemorrhage is *vicarious*.

"As its name imports, it is supplemental of a similar natural or morbid state in a remote organ, and is most frequently observed in young females, in consequence of the tardy appearance of the menstrual flux, or from its suppression after it has been established. In the great majority of cases, it is located in the mucous membrane of the nose, and recurs with considerable regularity every lunar month, until the obstruction, of which it is the result, has subsided. Occasionally the blood oozes from the skin, the eye, ear, lung, anus, and even the nipple, either simultaneously or successively."—66.

Again there are *critical* effusions, as in protracted fevers, where vital power is lowered, and irregular accumulations of blood occur in certain organs.

When blood is effused it may be rejected, as when it occurs in the intestinal tube; or absorbed, as in the lungs and brain; or remain and become organized; or, lastly, act as a foreign substance, inducing fatal inflammation. As to the absorption of blood, the same difficulties occur as in the absorption of pus. The blood globules cannot pass unchanged into the vessels, any more than they can pass out, unless there be rupture of the parietes.

Softening—mollescence, ramollissement—the subject of the next chapter, is one of the most unequivocal signs of inflammation; occurs, though not with equal frequency, in nearly every organ in the body; and in some structures, the tendons and cartilages for example, is almost the only sign of inflammation. It is frequent in the brain and spinal cord, in the spleen, the liver, and the mucous membrane of the intestines.

It is common in the bones, and sometimes pervades the entire skeleton, constituting *osteo-malacia.* The inflammatory action accompanying it is generally acute, though sometimes it is of a mild or chronic grade. Rostan thought that in the brain it sometimes depends on ossification of the arteries; Bennett has shown that in these cases it is a modification of the process of suppuration. Softening would seem almost necessarily to precede suppuration and ulceration: the tissues are first filled with serum or the other fluid elements of the blood; nutrition is overborne, cohesion impaired; and molecular disintegration ensues, with discharge or absorption, or both.

A softened organ may be unnaturally white, as in the brain, or red, as in the lung (red hepatization), or any intermediate shade of color. The seat of this lesion seems to be for the most part in the cellular element, as might perhaps be inferred from its universality. It is also a post-mortem occurrence, as in the lung from gravitation or stagnation of the blood, and in the stomach from the action of the gastric juice.

Chapter VII. treats of *Gangrene*, which term the author uses as synonymous with mortification and sphacelus. We pass this chapter with a notice of one or two points.

Gangrene may arise from an impoverished condition of the blood. This is seen in the ill-fed, ill-clothed, and ill-housed children of the lower orders of society, in whom it attacks the groin, axilla, and feet, and the mucous membrane of the mouth and vulva. In France, Switzerland and Germany, the lesion is frequent, occurring in terrible and devastating epidemics, from the eating of grain affected with *ergot.* The parts which most frequently suffer are the extremities, generally the lower; it may involve a part or the whole of an extremity; is in most cases preceded by the local symptoms of inflammation; the parts are left unusually dry and hard, the gangrenous odor being generally absent. Similar effects have been produced by feeding spurred rye to some of the lower animals. The disease from this cause is rare in this country, especially in the valley of the Mississippi. It has prevailed at different times in Pennsylvania and New York among horned

cattle; and in these instances, according to Mease, arose from the use of the *green grass*, the poa viridis of the botanists, the seeds of which were affected with ergot. Inflammation running rapidly into gangrene has been seen by Barbier and others to follow the inordinate action of emetic substances; the gangrene attacked the feet and toes, the hands, chin, lips, nose and ears; and seemed to arise from the sudden and great reduction of the powers of life.

Senile gangrene, occurring most frequently in the lower extremities, especially the feet and legs, is not confined, as the name imports, to the old. Of sixty-seven cases collected by Hecker, one occurred between the 1st and 10th year, six between the ages of 10 and 20, seven between 20 and 30, nine between 30 and 40. The largest proportion, however, occurred between the ages of 50 and 60, and 60 and 70, there being twelve in the former period, and nineteen in the latter. The progress of this affection is generally slow, and often unaccompanied by any local symptom except the discoloration. Pott, who first described it, thought it most frequent in males in the proportion of twenty to one. In France the proportion is nearly the same in both sexes. In the cases just referred to, collected by Hecker, the males are to the females less than two to one. The author has seen but three cases, two of which were females. The cause is "undoubtedly inflammation of the lining membrane of the vessels, especially of the arteries, leading to an effusion of lymph, and the formation of coagula, fibrinous concretions, and other extraneous products in their interior." This may be so; we are disposed to think it is, in view of the dry, moistureless, and withered state of the affected part; but still may it not be the consequence of the disease, instead of its cause?

Ulceration is the subject of the eighth chapter. By this term the author understands "the solution of continuity of a texture from the absortion of its molecules." It is synonymous with the *erosion* of the older writers, and with the ulcerative absorption of Hunter and the modern pathologists. This lesion is by far the most common in the skin, mucous mem-

branes, and cellular tissue. Next in order come the heterologous formations, the bones and teeth, the articular cartilages and their coverings. The proper serous membranes, the fibrous and muscular structures, rarely suffer; nor do any of the internal organs except the uterus. The blood-vessels have a remarkable exemption from this lesion; arteries are occasionally seen playing away whilst all around them is undergoing rapid destruction; the vessel in such cases is protected by a coating of lymph. The mucous membranes of the respiratory and the genito-urinary organs are rarely ulcerated. In the intestinal canal, the ileum and colon are much oftener affected than the stomach. Ulceration may be rapid or slow; destroying a large portion of one or several tissues in a few days; or enduring for months and years as in bone, skin, and mucous membranes. In its progress, it tends towards the nearest surface, or towards the termination of the arteries, as was mentioned in speaking of abscess.

The great cause of ulceration is inflammation conjoined with pressure. It may occur without pressure, as in the skin and mucous membranes; and again, pressure seems to be the chief cause, as in caries of bone from the presence of an aneurismal tumor. As predisposing to this lesion, may be mentioned that condition of the blood in which its solid or fibrinous elements are wanting, and in which, as we have already stated, irregular accumulations or congestions take place in various parts of the body. Vital power is lowered, and from trivial causes; from the application of blisters, from slight blows, inflammation is set up, and terminates in "a foul, sloughy, and irritable ulcer." Bed-sores of the hips and buttocks occur in low states of fever; old wounds break out afresh and fractures are disunited in scurvy; and in animals fed on non-azotised articles of food, ulceration attacks the cornea and other textures. The pain attending ulceration is sometimes inconsiderable; again it is "of a dull-aching or gnawing character, as if insects were feeding on the part." Sometimes it is constant, sometimes intermittent, sometimes

periodical; and often is accompanied with hectic fever, rapid emaciation, and great reduction of the vital powers.

Ulceration is not always to be deprecated. It enables abscesses to *point;* it brings foreign bodies to the surface; and in old drunkards it forms a sort of safety valve by establishing sores on the extremities, thus saving them in all probability from internal disease.

We have quoted the author, and other writers, as saying that ulceration of a part depended upon absorption of its molecules. But is this true? We think not. Our limited space will not justify a discussion of the subject here, even if it were likely to be attended with any practical benefit. We cannot help remarking, however, that absorption is either diminished, or absent during the inflammatory process; that in the heterologous formations, ulceration readily occurs, absorption never; that previous to gangrene, arteries, veins, absorbents—everything is glued up by coagulable lymph, and that the dead part is pushed off as it were by pus, which flows away mingled more or less with the debris of the dead and dying tissues. In short, without denying that absorption sometimes exists, ulceration seems to us, in most cases, to be death by molecules, as sloughing and gangrene are death in mass.

Chapters IX and X.—We come next to *granulation* and *cicatrization.* Both are subjects of vast interest, but our notice of them must be brief.

Granulations are small, red, pointed, somewhat firm bodies, composed of coagulating lymph, which becomes organized in the manner previously mentioned. They are highly vascular; the vessels, which may be demonstrated by injection, are arranged in a tuft-like form, and those of adjacent granulations communicate only at the base. These little bodies are sensitive, sometimes extremely so, and hence have nerves; they are capable of absorbing various substances, and are themselves sometimes absorbed. They are developed most readily in parts that are lax and vascular. In mucous membranes, aponeuroses, ligaments, tendons, cartilages, and bones,

they form tardily, and these are structures in which lymphization is imperfect. They are rarely seen in any of the viscera except the brain.

Cicatrization is the healing of wounds and ulcers, and, like resolution and gangrene, is a proper termination of the inflammatory process. All the textures of the body may be thus regenerated, except cartilages and muscles, and in one instance the author has seen muscular substance renewed. This regeneration, however, is never perfect. In cicatrix of the skin, for example, the inner surface of the new production is not reticulated, the mucous net-work is imperfect, there are no sebaceous follicles, nor follicles containing hairs. Cicatrices are liable to inflammation, and vital power being feeble, they are thus easily destroyed; to hypertrophy, and hence they have a rough knobby feel, and dense fibrous structure, creaking under the knife; to inordinate contraction, as after burns, producing horrible deformity, and after severe mercurial salivation, causing rigid and firm closure of the jaws; to semi-malignant growths, in the shape of a small dry excrescence covered with cuticle, soon becoming moist and partially ulcerated, secreting thin fetid and semi-purulent fluid, by and by converted into a more solid tumor—scirrhus or encephaloid—as large as a pullet's egg, followed by ulceration, fungous granulations, and death from accompanying discharge and irritation. After a cicatrix is removed, the second sometimes shows the same disposition to contract. Two years ago we saw a case of closure of the jaws from mercurial sloughing and ulceration of the gums and cheeks. The parts were perfectly rigid, the lower jaw scarcely moveable and firmly held against the upper by thick bands and sheets of fibro-cartilaginous structure. These were divided, with slight but temporary improvement. Next they were entirely removed, after which the jaw had considerable motion, and a machine was constructed so as to keep it constantly depressed. But it proved fruitless; for, as cicatrization went forward again, so did the gradual but firm contraction, rendering the counteracting force insupportable; and the

little sufferer was sent away unrelieved. The malignant growth, just mentioned, rarely returns when removed.

The chapters that we have now noticed include the more direct and immediate conditions of inflammation. Before proceeding further it may not be amiss to remark that, although these conditions, or terminations as they are called, are thus isolated for the purpose of study, they do rarely, if ever, actually so occur in the living body. For example, the effusion of serum, except when it serves, like hemorrhage or bloodletting, to resolve or cut short an inflammation, is never seen alone, but exists throughout the whole process. In cicatrization, itself an absolute termination, there is an effusion of serum, of lymph, and of pus, not to mention organization, all going forward at once. Ulceration and suppuration co-exist with scarcely an exception, and both, as we have already intimated, are generally preceded by softening. Suppuration is seen in connection with lymphization, hemorrhage, and effusion of serum; as is fully recognised in the terms *fibrinous*, *sanguinolent*, and *serous*, applied to pus. Thus it is readily seen how complex a process is that of inflammation.

The succeeding chapters are devoted to some of the more remote consequences of inflammation—Induration, Hypertrophy, and Atrophy. By *Induration* the author means an increase of consistence in an organ, whether arising from deposition of new matter (excluding heterologous formations), from deficiency of natural secretion, or from transformation of some of its tissues. This lesion is an exceedingly common one, common to all the tissues in the body, though not equally so; occurs at any age, and even during intra-uterine life; exists alone, or associated with other alterations; and may affect a part or the whole of an organ, or only one of its anatomical elements. The *size* of a part indurated, like its *color*, may be natural, augmented, or diminished. An increase of size is most frequent, as in the liver, spleen, and lymphatic ganglions; so, too, the weight is more frequently above than be-

low the natural standard. The *degree* of induration depends upon a number of circumstances.

In reference to the time required for the production of this disease, it may be said to be chronic, occupying weeks and months and years, as is far the most frequent; or acute, occupying but a few days. The chief cause of this lesion, is a deposition of coagulable lymph as a consequence of inflammation. Along with this there is frequently poured out, as in the lungs, more or less of the coloring matter of the blood, or the blood itself, giving the affected structure a red color. In hardening of the cellular tissue in infants, the coloring principles are two: one an orange red, the other bluish. Induration from deficiency of the natural secretion, is seen in the general drying up of the organs and tissues in old people; being most considerable in the cellular tissue, mammæ, ovaries, prostate gland, the voluntary muscles, and the bones. Induration from transformation, or the disappearance of some of the elements of an organ, is occasionally seen in the liver, spleen, and lungs, around hydatids, serous cysts, tubercles, &c. The lung affords an example when the copious effusion in chronic pleuritis reduces it to a mere cake, *ex*pressing its fluid contents, and *com*pressing its solid elements. Induration from this last cause is constantly associated with atrophy.

Induration when suffered to continue may lead to the cartilaginous, the fibro-cartilaginous, and osseous transformations. Of the two forms, the acute and the chronic, the latter is most amenable to treatment; which is something directed to the removal of morbid deposits—iodine and kindred articles internally, stimulating frictions externally—and must be long continued.

Hypertrophy, frequently accompanied by the last affection, is not so widely diffused, as no one has ever seen it in the serous membranes, ligaments, tendons, or fibrous envelopes. There are few, however, who have not observed it in the adipous tissue, heart, spleen, thyroid body, &c. &c. Like induration, too, it occurs at all ages, and, in the case of the thymus gland, possibly during uterine life. Hypertrophy may be

general, occurring (with the restrictions just mentioned) in nearly every organ and tissue of the body at the same time; or local, occupying a single organ, or, w hatis more frequent, a part of an organ. The causes may likewise be general and local. Of the former we know but little. Among the local causes chronic inflammation holds an important place. It produces enlargement of the spleen, the liver, and the lymphatic ganglions, developes the follicles and villosities of the mucous coat of the intestines, and thickens the mucous tunic of the bladder. Increased action of an organ, to overcome some mechanical impediment to the performance of its function, is another cause: as in the heart, from hindrance to the exit of blood; in the muscular coat of the stomach, from obstruction at the pylorus; in the urinary bladder, from stricture of the urethra, or enlargement of the prostate. Hypertrophy also follows increased action in the discharge of healthy function. This is seen in the lung, the kidney, and the muscles of voluntary life. It is simply the physiological law upon which the physician acts when he directs, "plenty of exercise and plenty of fresh air," to give vigor and power to the enervated frame. An enlarged organ may have its consistence increased (induration), diminished (softening), or unaltered; the former is much the most frequent. Increase of weight is generally present, unless there be at the same time atrophy of some other element. Increased volume is by no means constant. Change of form occurs when the lesion is partial.

Atrophy, although existing sometimes in connection with hypertrophy, is a totally opposite lesion. Hypertrophy consists in an exaltation of the nutritive function, atrophy in its imperfect exercise. In the one, the body will attain the weight of seven hundred pounds, without an unusual quantity of aliment; in the other, it will fall to fifty-eight, with the usual quantity of food. General atrophy (marasmus, emaciation, consumption) attends divers chronic diseases of the lungs, heart, and stomach, It also occurs in the progress of age—*senile* atrophy.

"All animals have a period of growth, maturation, and decay. In the human subject, the body, after having reached the age of forty, begins to exhibit traces of decline, which from this time on become gradually more and more conspicuous, until the machine is literally worn out, and man 'goeth to his long home.' Examined at this period, the whole mass of the brain is generally found diminished in size, the nerves have lost their moisture, and the ganglia connected with them are condensed, and considerably shrunk in volume. The respiratory system experiences similar changes: the lungs are dryish, inelastic, and increpitous, their volume is sensibly lessened, the walls of the air-cells are attenuated, and whole lobules are sometimes deprived of their vesicular structure. The muscles of voluntary life are pale, flabby, and diminished in bulk; the arteries, veins, and absorbents shrink in their diameter, and a large proportion of the more minute ones, becoming useless, are obliterated, and lost; the lymphatic ganglions are hard, small, and many of them entirely dispapear; the bones are spongy, brittle, and extremely prone to fracture; the ligaments are unusually slender; the articular cartilages dry, and attenuated; and the salivary glands, together with the liver, pancreas, spleen, and kidneys, are indurated, and considerably reduced in size. In the male sex, after the functions of the testicles have ceased, absorption frequently commences in these bodies, which shrink, become soft, pulpy, and are sometimes not larger than a French bean. The cells of the penis are augmented, and their fibrous parietes very much attenuated, in some iustances even partially absorbed. In the female, the ovaries are pale, shrivelled, and frequently transformed into a condensed greyish substance; the mammæ are soft and flabby, with scarcely a trace of their original structure; and the uterus is hard, firm, and diminished in volume."—89, 90.

Local atrophy may affect the whole or a part of an organ, or one of its constituent elements; may exist singly, or in conjunction with hypertrophy, induration, or softening. The causes are: the cessation of function in an organ, as in the pupillary membrane, and wolffian bodies before birth, the ovaries and thymus gland after birth; diminution of nervous influence, as in the arm and leg from pressure on the axillary and sciatic plexuses; deficient supply of blood, as in the testicle when the spermatic artery is tied; inflammation, as in the

gall bladder from the presence of biliary calculi, and in a thousand other cases.

The subject of the next chapter is one not found in the former edition, nor is it noticed, except incidentally, in most of the treatises on morbid anatomy.

A Fistule—fistula, as it is generally termed in the books—is always a consecutive disease, is developed by various causes, and may be formed wherever there are two contiguous cavities, or a cavity and an external surface. It has usually two openings, and then is said to be *complete;* when there is but one opening, it is termed a *partial* or *blind* fistula. Fistules receive various epithets according to their situation; as anal, recto-vaginal, vesico-vaginal, perineal, broncho-pleural, &c. They vary in length from a few lines to several inches; the largest usually observed in connection with psoas abscess, between the kidney and lung, and between different coils of intestine. The diameter is sometimes exceedingly small, scarcely admitting a bristle, as in lachrymal fistula; or so large as to admit the finger. The track may be straight, or exceedingly tortuous and winding; may communicate externally by one or several openings; and may have branches ramifying from it. A recent fistule is nothing more than a granulating surface; by-and-by it becomes lined by coagulable lymph, a true pyogenic membrane, of variable thickness—at first more or less red, afterwards white, grey, or bluish—smooth upon its free surface, or mammillated and villous—and covered by a thin glairy fluid, which is more or less mingled with the secretion of the part upon which the fistule opens. This lining membrane, in old cases, often acquires the consistence of fibro-cartilage; and the surrounding parts are likewise rendered firm and callous by coagulable lymph.

"There is a variety or form of fistule which may be regarded as a remnant of embryotic organization. Its most frequent situation is the antero-lateral part of the neck. Like the ordinary fistule, it may terminate in a cul-de-sac, or it may have two orifices, of which the external is sometimes scarcely visible. The abnormal passage itself is usually very narrow, and seldom extends beyond two or three lines in depth."—94.

We come next to *Transformations,* which means "those changes which a pre-existing tissue undergoes, as it is being converted into another that is totally different from it, but which has its analogue in the animal economy." Those admitted by the author are the cellular, mucous, cutaneous, fibrous, cartilaginous, osseous, and adipous. We shall have an opportunity of noticing these in connection with the different organs and tissues, and shall therefore pass them by now, with the remark that they are most frequent in old age, and in the opinion of the author are invariably dependent upon inflammatory irritation.

Chapter XVI.—*Pneumatosis, or collections of aëriform fluids.* Examples of this affection are familiar to all, in pneumo-thorax, emphysema, tympanitis, &c. The quantity of aëriform fluid is subject to great diversity: it may occupy the entire body, as in emphysema; or be restricted to a few lines, as in the lung; it may puff up the intestines, paralysing their muscular coat, displacing the abdominal organs, and interfering with the descent of the diaphraghan; or enlarge the uterus so as to simulate pregnancy. The *physical* and *chemical qualities* of the fluid are subject to equal diversity. In the lung and sub-cutaneous cellular tissue it generally occurs after wounds, and then resembles in all respects the atmosphere whence it is derived. In other situations it contains variable quantities of oxygen, carbon, hydrogen and nitrogen—sometimes it is inflammable from the large admixture of hydrogen, sometimes the reverse from the predominance of carbonic acid gas. In the alimentary canal, uterus, pleura, and in scrofulous abscesses, it is mingled with a greater or less quantity of sulphuretted hydrogen.

Air may find admittance through a wound, as in emphysema of the lung and sub-cutaneous cellular tissue; or through some natural opening, as when it is swallowed, or when it collects in the vagina and uterus from relaxation of the former organ. Again it may arise from the operation of chemical agents; as in the uterus, from retention of blighted ovum, portions of placenta, or of fœtal membranes, which undergo decomposition; in

the intestinal tube, from the play of chemical affinities among the heterogeneous articles of food, especially when digestion is disordered; in the chest, when there is a collection of seropurulent fluid; and in hernia, when sphecalus occurs. Lastly, it may result from a true vital process of exhalation or secretion. Analogical evidence is furnished by the fact that exhalation of oxygen and absorption of carbonic acid is constantly taking place in vegetables, that just the reverse process is going on with equal constancy in the human lung, and that the air in the air-bag of fishes is evidently secreted. It is ascertained also that an aëriform fluid exists in the blood, consisting, according to Krimer, of oxygen, carbonic acid, and hydrogen. Extrication of gas in different parts of the body has been observed to follow excessive losses of blood.

Spontaneous pneumatosis is most frequent in females about the decline of the menses. The development may be rapid; or gradual—some cases of physometra lasting for months and years. Sometimes it recurs periodically, every day, or every other day; it is also supposed that it may be hereditary, but the evidence is not conclusive. C.

[TO BE CONTINUED.]

ART. V.—*On Diseases of the Liver.* By GEORGE BUDD, M.D., F.R.S., Professor of Medicine in King's College, London; and Fellow of Caius Cambridge. *With colored Plates and numerous Woodcuts.*—Philadelphia: Lea & Blanchard. 1846. 12mo. pp. 392.

It is not a great many years since the Liver figured conspicuously in every system of pathology. The influence of this great organ was recognised in almost every disease. We had treatise after treatise upon liver complaints; and fevers, dropsy, dyspepsia, and a host of other maladies were traced to congestion of the portal circle. In derangement of the liver, and cutaneo-hepatic sympathy, and want, or disorder of hepatic secretion, we found an explanation of half the ailments that flesh is heir to.

But "a change came o'er the spirit of our" medical literature; and it is now a long time since we had a volume on the diseases of the Liver. The Lungs, the Heart, the Kidneys, the Skin, and the Nervous System, have usurped its place, and been extorting the attention long bestowed upon it.

This, perhaps, is not difficult to account for. Medicine, unquestionably, is assuming more the character of an exact science. The profession had grown weary of the vague conjectures respecting hepatic diseases, and hepatic sympathies, while it was led away to the affections of the chest, for the investigation of which new and more accurate methods had been discovered; and to those of the skin and kidneys, which were either visible, or afforded, at least, some index to their nature in one of the excretions. The changes wrought by disease in the lungs and heart could be detected by the ear; and some knowledge of the lesions of the kidneys might be gained by the analysis of the urine; but percussion threw very little light on the morbid changes in the liver, and its secretion could not he collected and analysed. Thus, while precise information was attained in respect to the physical condition of other organs, to detect and distinguish the diseases of the liver, practitioners had little more than the signs of functional disturbance. Hence, for so long a time, no addition has been made to the number of our guides in the discrimination and treatment of these disorders. The work before us has appeared opportunely, and will meet with a hearty welcome from the profession.

Very recently, this author remarks, "two of the impediments to the study of diseases of the liver have been in some degree removed." He refers to the precise composition of the bile, with a knowledge of which modern chemistry has furnished us, and to the insight we have gained by the microscope into the intimate structure of the liver. He begins his work with an account of the minute organization of that viscus, some of the points relating to which have only lately been made out. We cannot follow him in this interesting description, but will not leave the subject without reference

to one point—the office of the *nucleated cells in effecting secretion*, which is now considered an established fact in physiology. The author remarks on this head:—

"It is not in the liver only that the cells perform this office, for it seems established as a general law, and it is certainly one of the highest and most interesting which the study of minute structure has yet disclosed—that all true secretion, whether in animals or in plants, is effected by the agency of cells; that, 'however complex the structure of the secreting organ, these nucleated cells are its really operative part.' In each secreting organ, the secreting cells have a peculiar power to form, or to withdraw from the blood, the secretion proper to the part.

"In such of the glands of animals as have excreting ducts, the nucleated cells withdraw from the blood the peculiar principles of the secretions, which they elaborate more or less, and then, in one way or other, whether by bursting, or dissolving, or by some unknown mode, discharge them through the excreting duct."

In regard to the quantity of bile secreted by the human subject, we are in possession of no certain information, some physiologists rating it at a very few ounces, while Haller and Burdach have estimated it at from seventeen to twenty-four ounces. There can be no question that the amount varies in different individuals, and in the same person under different circumstances. That the quantity rises in some cases to the estimate of Burdach and Haller, is shown by the following extraordinary case, quoted by the author from the Medico-Chirurgical Transactions:—

"A strong, healthy man, a thatcher, fifty-four years of age, injured himself by lifting a heavy ladder, on the 28th of August, 1843. When seen by Mr. Barlow, the same day, he complained of so much pain in the region of the liver that a rupture of that organ was apprehended. He was very faint, in a cold sweat, and the pulse could scarcely be felt. Some brandy and water was given him, and he recovered sufficiently to be taken to his own house, which was about three miles distant. Five grains of calomel and a grain of opium were given him at night, and an ounce of castor oil the following morning, which operated and produced several natural evacuations.

"On the 29th he was bled, and continued the calomel and opium, with a dose of saline mixture, every five hours.

"On the 30th it was observed that the evacuations from the bowels were white and without bile, while the urine was dark, as in jaundice, Five grains of blue pill were ordered every six hours.

"As the pain in the region of the liver continued, the bleeding was repeated at different times, and a blister was applied over the right hypochondrium. The same medicine was continued till the 15th of September, when a swelling, the size of a walnut, was observed over the region of the liver. This gradually increased, and on the 9th of October, was so large and caused so much pain from distension, that it was thought proper to tap it. Seven quarts of fluid were drawn off, which from its color and taste appeared to be pure bile. The pain was instantly relieved, and the swelling entirely subsided.

"The fluid collected again, and it was necessary to repeat the tapping on the 21st of the same month, when six quarts and a half of fluid were drawn off. This fluid was analyzed by Dr. Pereira, Dr. G. O. Rees, and Mr, Taylor, and found to be composed in great part of bile. Dr. Rees guessed the proportion of bile in the fluid to be at least eight parts in ten.

"On the 31st of October he was tapped again, and seven quarts were drawn off. On the 9th of November the operation was repeated for tha fourth time, when six quarts were withdrawn. On the 18th of November he was taken to St. Bartholomew's Hospital, and tapped again, when nine pints of fluid escaped. The cyst was not emptied as on the former operation, and he suffered extreme pain from the tapping, which he had not previously done. On the following day, bile appeared in his stools, and the urine was lighter colored. On the 3d of December, the motions were of proper color, containing plenty of bile. The swelling gradually subsided, and towards the end of the month he became quite convalescent. In the beginning of February he was able to walk eight or ten miles; and when an account of his case was presented to the Society, appeared to be in good health."

Whatever may be the fate of certain conjectures respecting the final destination of the bile, it is impossible to regard it as purely excrementitious. In the first place, only a very small quantity of it is evacuated by the bowels, and this is conclusive against that supposition. But the fact that it is emptied so high up into the alimentary canal shows that it is

designed to take part in the nutritive function. Digestion cannot be completed without it, and one of its purposes, doubtless, is to aid in the perfection of that process; nor is its relation to respiration less direct and fundamental. Whatever embarrasses the lungs affects the liver. If they perform their function less efficiently, it has more to do. A change of climate, which implies a change in reference to the consumption of oxygen, is felt especially by the liver. Imperfect oxidation devolves more labor upon the liver, the office of which is to depurate the blood of various elements, the retention of which would be hurtful to the system. Exercise and diet, in like manner, influence the secretion of this organ, by affording to it more or less carbonaceous matter to be removed in proportion to their amount. Our author gives illustrations of this view of the subject in the following passage:

"Thus, for example, may be explained many of the bilious disorders of hot climates. If, in such climates, the food be not regulated in accordance with the smaller needs of the economy as to animal heat, an excess of bile is formed, and disorder of the stomach and intestines—bilious vomiting, and diarrhœa—are the consequence.

"Hence, also, the general repugnance to rich meats, and the greater tendency which these and spirits unquestionably have to produce disease of the liver, in hot seasons and in tropical climates.

"In the same way may be explained the greater frequency of bilious disorders in middle life, when men begin to take less exercise, and their respiration becomes less active, while on the other hand, the tendency to indulgence at table but too often increases.

"We may also often see inverse evidence of these relations in the effect of pure air and active exercise, in relieving various disorders that result from repletion, and from the retention of principles, which if not burnt in respiration, should pass off by the liver as bile. Every sportsman must have remarked the effect of a single day's hunting in clearing the complexion. It has, no doubt, much the same effect on the liver, as on the skin."

Most persons, our author concludes, "have more liver, as they have more lung, than is absolutely necessary." But in

others, this viscus is just competent to the task of purifying the blood from its bilious principles, when in healthful activity. Such persons are born with a tendency to hepatic derangements. Slight causes derange the balance, and they suffer for the want of due bilious secretion, when they change their climate, indulge in gross living, take too little exercise, or become costive. They grow bilious, sallow, and dyspeptic, because the liver is not depurating the blood. Exercise, laxatives, and reduction of diet are followed by relief,—the first promoting a more active combustion of the carbonaceous elements; the last giving the liver less to do. The action of medicines on the liver elicits from our author the following remarks:

"Various medicines seem to fulfil to a certain extent the 2d object, that rendering the liver more active, and increasing in this way the secretion of bile. Mercury, iodine, muriate of ammonia, and taraxacum, have undoubtedly an action of this kind. The first and the last of these medicines, especially, have long been in this country the chief resources of the physician in the treatment of chronic hepatic disorders. The marked temporary benefit often resulting from mercury given for this effect has from the difficulty of distinguishing the various diseases of the liver, and the consequent indiscriminate use of the drug, led to great evils. This medicine was at one time, by English practitioners, given almost indiscriminately, and long persevered in, for disorders of digestion, many of which did not depend on fault of the liver at all, but on local disease of the stomach or intestines, or on faulty assimilation, the result of debility, which the prolonged use of the mercury but too often increased. Of late, these evils have much abated, but still, before the diagnosis is rightly made, mercury is often tried in cancer, and other incurable organic diseases of the liver, in which this and other powerful and lowering remedies can only do harm."

The following are the heads of the subjects embraced in this volume: Congestion of the liver; inflammation of the liver, gall-bladder, and ducts; softening, fatty degeneration, and scrofulous enlargement of the liver; excessive and defective secretion of bile; gall-stones; cancer, and hydatid tumors of the liver; jaundice.

Congestion of the liver, which fills so large a space in many treatises on the affections of that organ, occupies but seven pages in this work. It is divided into *hepatic-venous* congestion, *biliary* congestion, and *portal-venous* congestion. The anatomical characters of congestion of the liver are deep color and increased size, which, generally, are not attended by pain, and only by a sense of weight and fulness, with a slight jaundice tint. Depending upon mechanical obstruction of the circulation, in the heart or lungs, as is generally the case, the remedies for hepatic congestion are to be addressed rather to the primary affection than to the liver. They embrace purgatives, venesection, diuretics, and diet. Where the congestion has its origin in an altered state of the blood itself, as where it accompanies purpura hemorrhagica, the treatment is still less satisfactory. Congestion from fever and ague is the form most successfully treated.

Dr. Budd holds that inflammation ought not to be divided into acute and chronic, but classified according to the cause producing it. He cites inflammation of the knee in illustration, which may be connected with gout, or with gonorrhœa. In the first case it is curable by colchicum; in the last, that article is inoperative. So in other instances we must know the cause, before we can apply the remedy.

Inflammation of the liver he divides into *suppurative*, *gangrenous*, and *adhesive;* to which he adds inflammation of the veins of the liver, and of the gall-bladder and ducts. Abscess of the liver, the result of suppurative inflammation, may originate in either of these causes; namely: 1st. *a blow;* 2dly. *suppurative inflammation of a vein;* or, 3dly. *ulceration of the intestines, stomach, or gall-bladder.* To one or the other of these causes, he contends, all cases of hepatic abscess may be traced; and whether he has fully established his position or not, he has, at least, rendered it highly probable.

[TO BE CONTINUED.]

SELECTIONS

FROM

AMERICAN AND FOREIGN JOURNALS.

Case of Intermittent Fever complicated with Purpura Hæmorrhagica: cured by Quinine and Nitric Acid. By W. W. Leak, M.D., of Cass county, Ga.—Mr. ——, aged 75 years, a wagon-maker by trade, of plethoric habit and somewhat intemperate—says he has been unwell for two weeks, and on the 29th of Sept. had a chill followed by fever. Soon after this there was an appearance of blotches over various parts of the body, especially on the lower extremities; he had also some spitting of blood; and on the 30th another chill and fever, with vomiting of blood.

At 3 o'clock, P.M., of the 30th, he presented the following symptoms:—countenance pale; headache; pulse a little more feeble than natural, and soft; has cough; some oppression in the chest, and expectorates a little blood; oozing of blood from the mouth and nose; has no appetite; some tenderness over epigastric region; extravasation of blood under the cuticle on various parts of the body, especially on the lower extremities and neck; some bloody vesicles on the tongue as large as peas.

Prescription.—V. S. 4 to 6 ounces, which relieved the pain in head and chest.

℞ Calomel, 6 grs.
Dover's powder, 6 grs.
Acetate of lead, 3 grs.
Mix.

Divide into three powders, and give one every third hour. An ounce of castor oil to be taken at night; warm pediluvi-

um with salt. Eight grs. sulph. of quinine, 2 grs. to be given every hour, commencing at 7 o'clock, A.M.

Oct. 1st, 8, A.M. Patient better in all respects, except there is no disappearance of the blotches; has had no cough since the first powder was taken.

Prescription.—10 grs. of calomel, to be followed by oil; a teaspoonful of elixir vitriol to one pint of sage tea, to be taken during the day; acetate of lead and Dover's powder to be given if the hæmorrhage returned; 20 grs. sulph. quinine, one-fourth to be given each hour, commencing in the morning at 7 o'clock.

2d, 8, A.M. Had a chill yesterday at 1 o'clock, followed by hæmorrhage from the mucous surfaces. Pulse 110, and quite feeble. In consultation with my friend, Dr. Milner, we determined on giving the nitric acid according to the formula in the August No. of the Southern Medical and Surgical Journal, of Dr. J. J. Bradford.

℞. Nitric acid, ʒi.
Pulv. gum arabic.
White sugar, *ää.* ʒii.
Water, ℥v.
Mix.

Of this, we gave one tablespoonful every six hours, instead of a half tablespoonful, as is recommended by Dr. B.

3, P.M Patient is easy; pulse 100; hæmorrhage less. To continue the acid, with 25 grains sulphate of quinine, one-fonrth to be given each hour, commencing in the morning at 7 o'clock.

3d, 8, A.M. Patient rested well last night; had no hæmorrhage except per rectum and urethram, which was not so copious as previously. Pulse 80. Continue the acid.

5, P.M Had no chill to-day. Pulse 72; complains of his head and ears ringing; the blotches are disappearing; his bowels have been moved once or twice. 12 grains quinine to be given in the morning in 3 gr. doses, commencing at 7 o'clock.

4th. Improvement in all respects; blotches disappearing very fast. The acid to be continued for a few days. Dismissed the case to day.

Although this patient has had two or three chills since, we learn there has been no recurrence of the purpura.

The indication in this case was to check the chill, and though the disease complicating it, purpura hæmorrhagica,

was abated by the prescriptions first employed, still we think its cure may be clearly attributed to the nitric acid.—*Southern Medical and Surgical Journal.*

Hydrocele Cured by Electricity.—Dr. F. Campbell Stewart mentioned having recently cured a large hydrocele, seventeen inches in circumference, and thirteen and a half from pubis to its base, by *electricity;* one needle was inserted into the cavity of the tunica vaginalis testis, also one through the cellular tissue over the scrotum. The application of electricity was continued half an hour, and was attended with intense pain. In forty-eight hours the fluid had entirely disappeared. A second case treated in a similar manner was not successful.—*Proceedings of the N. Y. Med. and Surg. Society.*

Insanity in a boy four years of age, following Fright.—Dr. James Macdonald related a case of Insanity, occurring in a healthy boy, four years old. The first symptoms seemed to follow a fit of anger. He was refused permission to go into the country, and became very much excited. In the evening he was punished. This was followed by paroxysms of terror, the child having a frightened and startled look; sometimes he would become violent, striking at those around him, &c. This was in the latter part of June: there was heat of head, and the digestive organs were deranged. These latter were attended to, and then the shower-bath ordered; it however occasioned such terror that it was discontinued. A seton was placed in the back of the neck: some improvement followed, but the child again became worse, and gradually fell into a state of *idiocy*, passing urine and fæces involuntarily, losing the use of language, and acquiring a dull heavy look. The child was removed to the country, and on returning was attacked with intermittent fever of a tertian type. This was permitted to take its course, and continued till December. During its continuance, the mind gradually recovered its powers, so that by the middle of December the patient was entirely restored. There has been no instance of insanity in the family.—*Ibid.*

Hay Asthma.—Dr. Swett also had met with another singular case: He had been called into the country to visit a

gentleman 70 years of age, apparently laboring under asthma. The patient, who had always been healthy and free from cough, rose at night, laboring under a violent paroxysm of dyspnœa. A physician was called in, who bled him with some relief, but the disease recurred. The paroxysm would generally last 15 or 20 minutes, and then subsiding, the patient would remain free from distress for several hours. On one occasion, the interval had been as long as 48 hours. Dr. S. found the patient on his arrival apparently well, with the exception of slight oppression of breathing. On examination the respiration was found good, the action of the heart regular, and the pulse regular. Recollecting that asthma was occasionally brought on by breathing particular odors, Dr. S. inquired whether the patient had been exposed to anything unusual of the kind. The physician in attendance stated that he had, on the day of the attack, been employed in getting apples from a pit covered with hay. The hay and a portion of the apples had decayed, and gave out an offensive odor, which was probably the cause of the attack. Reference was then made to several cases, in which asthma had been produced by similar causes. The case of Dr. Perkins was mentioned, in whom asthma had been invariably produced by the smell of ipecacuanha. Dr. P. one day entered a drug store, and was instantly seized with the oppression of breathing, which precedes an attack. On inquiring, it was discovered that a clerk had two hours previously opened and exposed the powder of ipecac in weighing half an ounce. *Ibid.*

Chorea.—Dr. Beadle stated that on a former occasion he had reported several cases of chorea, successfully treated by the use of the tincture of black cahash (*actæa racemosa*), that he had recently given it to a patient aged nine years, but not with the usual good effects. He had then resorted to Fowler's solution, five drops three times daily, with the effect of speedly accomplishing a cure.—*Ibid.*

Fatal Vaccinia during Whooping Cough.—Dr. Vandervoort reported a fatal case of vaccinia during whooping cough. The child was apparently of a healthy constitution, and vaccinated with the view of cutting short the disease. He was called to see the child on the third or fourth day, when hæ-

morrhage had occurred at the point of vaccination. The hæmorrhage had much increased during the paroxysm of coughing. This state of things continued for three weeks, notwithstanding the treatment, which had consisted in the application of cold and astringents, the child dying at length in a state of perfect anemia.—*Ibid.*

Epilepsy.—Dr. Macdonald reported a case of epilepsy in a man aged 45 years, who previously had enjoyed fair health; although he had had symptoms of dyspepsia. He was attacked during the night, after returning from a fishing excursion, having been observed by a friend who slept in the same room. Dr. M. saw him in the morning; he continued in the epileptic state till 12, A.M., without five minutes' cessation. The convulsions were frightful; and so severe that it was ten days before he became conscious of his situation. The pulse remained unaltered. He was bled, and counter-irritants were used all over the body. Administered 220 drops of tincture of opium in two separate portions. Convulsions shortly ceased.—*Ibid.*

Hemiplegia.—Dr. Foster reported a case of hemiplegia in a child during dentition: he had lost the use of the left leg entirely, but had the partial use of the left arm. The treatment consisted in the use of stimulants, applied externally; under which the limb had been restored.—*Ibia*

Quinine—its effect upon the Spleen, Liver, &c.—Dr. Van Buren, of the U. S. Army, closes a paper in the N. York Journal of Medicine, on quinine, with the following observations:

"I have never seen a case of disease of the liver or spleen, which could—on the most remote evidence—be attributed to the use of quinine, either in large or small doses.

"Of the qualities of the sulphate of quinine as a *pure tonic in small doses* I have received an unfavorable impression, in the debility following diseases of this climate. Used in this

manner I believe that it acts only as a direct and peculiar permanent stimulant, and that it has a greater tendency to induce general irritability of the system than other and more simple vegetable tonics, with a decidedly unpleasant effect in many instances upon the mucous membrane of the intestines, and the brain.

"I have never recognized its action upon the liver.

"After stopping an intermittent fever by a full dose of quinine, unless the system requires decided support, I am not in the habit generally of administering tonics; and I have never witnessed more satisfactory cases of prompt and uninterrupted convalescence than while pursuing this plan of practice. In cases which required a supporting treatment, the indigenous tonics of the country—the prunus Virginiana and cornus Florida—have proved to be valuable medicines.

"According to my observations the unpleasant effects of quinine, in producing ringing in the ears, &c., &c., are more constant and severe in proportion to the smallness of the dose employed. I have seen many patients excessively annoyed by doses of two grains, frequently repeated, who have afterwards, under similar circumstances, taken twenty grains with comparative impunity. The medicine, in solution, has also a greater tendency to produce these symptoms than in pilular form; still the solution is more immediate and efficient in its action.—*N. Y. Jour. Med.*

Uterine Hæmorrhage at the sixth month of Pregnancy—The "Plug" and bandage applied—The Ovum Expelled in two hours after.—March 14, 1839, half past 3 P.M., I was requested by a surgeon to visit Mrs. G——, pregnant of her seventh child, herself believing that she had arrived at the full term of her gestation. She had had trifling pains since half past 9, A.M.; the cause of the hæmorrhage unknown. On examination, judging from the form of the uterine neck, and the degree of elevation of the fundus of the uterus in the abdomen, I expressed my conviction, although assured to the contrary, that the patient had not completed the term of her pregnancy. From the softness of the presenting head, and it being only to be reached by the tip of the finger, the case had been mistaken, by a party previously consulted, for one of placenta prævia. The hæmorrhage continuing, and the orifice of the uterus being undilated, I introduced, by separate portions, a plug of soft sponge, until the vagina was

completely filled; a pad was applied to the vulva, to prevent the escape of the plug, and a double-T bandage to the abdomen. The hæmorrhage was thus completely arrested. At the end of two hours, brisk expulsive action being instituted, the plug was removed, and immediately a six month's fœtus was expelled, the placenta speedily following, without difficulty. The patient's recovery was progressive and perfect. *London Lancet.*

The action of Sulphuric Ether on an Enlarged Spleen.—Dr. Corrigan records, in the Dublin Hospital Gazette, a case of ague, in which quinine had been administered with the effect only of prolonging the intervals between the fits. Having given the patient a two drachm dose of ether, combined with twenty drops of laudanum, during the cold stage, the fits did not return; and the following observations of its influence on the spleen were made:

"The margin of the spleen was traced out several times before the measurement was finally taken, or the line of boundry of the organ marked on the surface. This being at length done, it was then found that the space of enlargement of the spleen during the rigor measured six inches in length, and seven inches and a half in breadth. The rigor being still on him he was given two drachms of ether and twenty drops of laudanum. Five minutes after, the rigor had quite disappeared, and the pulse had passed from 120 to 96; skin became warm; and the spleen is now only six inches and three-quarters by four and a half."

Hence Dr. Corrigan concludes—

"1. That the spleen can suddenly alter its volume.

"2. That other agents as well as quinine can effect this sudden alteration of size.

"3. A confirmation of old observation that a cure of the disease can be effected by other remedies as well as quinine."—*Ibid.*

Convulsions.—Recent evidence in children, shows that the ratio is in proportion to the standard of unhealthiness. Thus, on an average of the three years, 1838–'40, the proportion of deaths by convulsions and teething to the total deaths from *all* diseases was, in Birmingham 5·70 per cent., in London 7·30, in Leeds 12·20, in Manchester 13·70, and in Liverpool 15.—*Ibid.*

Cases of Labor in which the presentations are obscure.—At the commencement of my last letter I remarked, that the presentation of the fœtus in parturition may be ascertained, generally, very early in labor. The following cases may serve as illustrations of some of the difficulties which the practitioner may occasionally meet with:

I attended Mrs. G. in labor. The waters had already discharged themselves, and on examination the os uteri was found fully dilated, disclosing without question, a breech-presentation. As the pelvis was capacious, and the pains were effective, the labor was left to nature. After some hours of unlooked for delay, touching, occasionally, to note the progress of labor, I was not a little surprised to find a tongue protruding from what I had considered the distinctive mark of a breech presentation. This occurrence gave quite a *new face* to the affair. Nevertheless, in a short time the child was expelled by natural pains.

I had often repeated this anecdote to my familiar, professional friends, and many years afterward, my old and respected neighbor, Dr. H., called me to a very lingering case of *breech* presentation, in a young woman with narrow pelvis, in labor with her first child; and he jocularly said—"no mistake, there is no tongue here." It turned out, on examination, however, to be a *face* presentation—and the delivery of a dead child was effected after some difficulty, with the forceps. It seemed that my old friend, in his too eager search for a tongue, had converted the fœtus into a young Cyclops.

Dr. ——, sent for me after having been in attendance on a young woman, in labor with her first child 36 hours. He told me the waters were early discharged, the os uteri fully dilated, and the pains were regular, forcible, and strong. To my enquiry, "what is the presentation?" he frankly replied, he did not know. With something like a sneer, I expressed my surprise, as he had had much experience, and was a successful accoucheur. After a careful, close, and critical examination, I was constrained to make the "honorable amend," for I could learn no more than that the pelvis was filled with a globular tumor which obviously contained *bones*. Possessing ourselves of a patch of the external covering of the tumor, it proved to be scalp, and with a pocket knife instead of a trochar, we punctured the tumor, and drew off between two and three pounds of water. The tumor collapsed, and the fœtus was expelled by natural pains, presenting the remains of an enormous head, with shrunken and shrivelled members.

It is somewhat extraordinary that, excepting in one other

case of hydrocephalus—though I have known it done many times by my professional acquaintances, I have not found it necessary in 40 years, from malformation, distortion of the pelvis, or any other cause, to lessen the head.—*Buffalo Medical Journal.*

Needle found in the heart of a Cow. By J. H. Beech, M. D., of Gaines, N. Y.—*Dr. Flint:* Sir—Having recently become somewhat acquainted with you, through your excellent journal, I take the liberty of sending to you the following circumstances, thinking that the case may be rather interesting to yourself, if it be not worthy of any further notice; of this you must judge, and please use it as you think proper.

About four years ago, Mr. James Mather, of this village, requested me to examine the body of a cow which had just died, being in very good flesh. He had owned the cow about two years: she had been sick at short intervals during most of the time, and recently had appeared to be distressed for breath. I found in the pericardium two or three quarts of thinnish, purulent, *acrid* matter. In taking out the heart, my finger was pricked by what I found to be the point of a large darning needle. I think its track could be seen from the œsophagus; it seemed to have entered the right ventricle just below the middle, had passed directly through, and was fixed across the left ventricle about through the middle, with the point sticking out on the left side ¼ of an inch. There was slight hypertrophy of the walls of the ventricles; otherwise the organ appeared healthy. Some congestion existed in a small portion of the left lung. These were all the signs of disease which I saw; the weather was very cold, and I was unable to make as close an examination as I would have liked.

I have the needle now in my possession; it is very much rusted, but the eye is still entire.

This cow had been fed on "*slops*" by a former owner, but not while in Mr. M.'s possession. I think she must have got the needle in that way, and that it had been in the body for more than two years, and for a long time in the substance of the heart.—*Ibid.*

Iodide of Iron.—A writer in the Boston Medical and Surgical Journal, April 30th, 1845, recommends the following as an easy method of preparing a very perfect syrup of the Iodide of Iron:

"Take of Iodide 200 grains, iron wire half an ounce, white sugar in powder four ounces and a half, distilled water one fluid ounce. Agitate the iodide, wire, and water together briskly in a strong two ounce vial with a glass stopper, until the froth becomes white. Pour the fluid immediately into the sugar in a glass or wedgewood mortar. Triturate a few minutes, and then add distilled water enough to make six fluid ounces. Twelve minims of this syrup contain one grain of iodide of iron."

In the same communication the following simple method of preparing pills of the iodide of iron, as recommended by Dr. Christison, is quoted:

"Take of iodide 129 grains, iron wire about the thickness of a thin quill, half an ounce, distilled water 75 minims. Agitate them briskly together in a strong ounce vial, provided with a well-fitted glass stopper, until the froth becomes white, which will happen in less than ten minutes. Pour the liquid upon two drachms of finely powdered loaf sugar in a little mortar, and triturate immediately and briskly for a few minutes; add gradually a mixture of the following powders, viz: Liquorice powder half an ounce, powder of gum arabic a drachm and a half, and flour one drachm. Divide into 144 pills. Each pill contains about one grain of iodide of iron."

The iodide of iron is becoming a favorite remedy with the profession. The two constituents are adapted to meet indications which are often presented together, and each element seems to derive advantage from the combination. The tendency to decomposition, however, is a serious difficulty in the way of its administration in a simple state. The presence of saccharine matter is found to be necessary to prevent this difficulty, and the two recipes which are given above, while they serve this object, have the merit of simplicity.—*Ibid.*

Puberty in the African.—An important law question, says the New York Sun of Thursday last, came before the Court of Common Pleas of Franklin county Ohio, in the case of Joseph Williams, a colored boy under 14 years of age, charged with an attempt to outrage the person of Althear S. McDougal, a child of five years of age. The charge was proven. It was contended for the defence that the prisoner, or a boy under 14 years of age, could not be punished for this offence, according to the English decisions. The prosecution held that these were inapplicable to the present case, and medical

testimony was given to prove that persons of African descent arrive at the age of puberty earlier than Europeans. This decided the question, and the jury returned a verdict of guilty. He was sentenced to the Penitentiary for three years. His counsel intend to carry the case to the Supreme Court, says the same paper. It would be a matter of peculiar gratification here, to know the source of the medical testimony which so essentially influenced the court. If the discovery has actually been made that individuals of African descent sooner arrive at puberty than the descendants of other races of men, it is altogether a new fact in physiology—and the law of development was first promulgated, we believe, in the precincts of the Ohio tribunal. A physician is expected to state what he knows to be fact, and, if a court insists, he is justified also in advancing an opinion; but to stand up before a jury and positively declare that the descendants of Africans arrive at puberty earlier than the Caucasians or Mongolians, is assuming high ground, and what we think is not susceptible of proof.—*Boston Med. and Surg. Jour.*

Dropsical Affections successfully treatrd with Sugar.—We find in the Gazette Medicale (11th Oct., 1845,) the notice of a collection of cases recently published by M. Bagot, illustrating the beneficial effects of sugar in dropsical affections. It seems to have been first used by Dr. Garnier, who, towards the close of the last century, became affected in the French West Indies, with ascites, for which he was tapped three times, when, looking upon his case as hopeless, he indulged an inordinate propensity to eat sugar. Finding that it agreed with him, he soon made it his sole food, and, to his great astonishment, found his disease rapidly giving way. He was restored to perfect health, and the case published in Paris.

M. Bagot now reports about twenty cases, including almost every variety of dropsy, even one of ovarian encysted dropsy, in which sugar has been used advantageously. The brown sugar is thought preferable to the refined, and should be used almost to the exclusion of all other nourishment—the quantity being increased from a few ounces to a pound per day. The remedy is simple, and certainly worthy of trial.—*Southern Medical and Surgical Journal.*

Case of Lodgment and Retention of a Foreign Body in a Bronchus for the space of sixty years, with its final expulsion.

(Communicated by Rodman Bartlett, Student of Medicine, Salisbury, Conn.)—The following case being somewhat unique in its character, may, perhaps, be deemed of sufficient interest to find a place in your valuable journal. It occurred in the practice of my preceptor, Luther Ticknor, M. D., who is ready to vouch for the facts here stated:

Richard Moore, of Salisbury, Conn., now aged sixty-three years, inherited a good constitution, but when three years old, swallowed accidentally a piece of bone, which nearly suffocated him at the time, and which, from that day to the present, has produced a series of phenomena, which could only be accounted for, on the supposition that the bone was lodged in some portion of the bronchial tree. For a long time he was harassed night and day with cough, and severe dyspnœa, attended with a rattling, or sibilant rhoncus, fœtid breath, more or less pain deep in the right side, about opposite the fifth or sixth rib, and midway between the sternum and dorsal vertebræ. These symptoms continued to harass him until nearly the age of puberty, when other symptoms appeared, of a still more alarming nature. At this period, the cough began to be accompanied with expectoration of purulent matter, tinged with blood; attended also with marasmus or atrophy, and other symptoms of confirmed pulmonary disease. At the age of nineteen, he was suddenly attacked with hæmoptysis, which continued, at irregular intervals, for a series of years; during which time his general health and strength were greatly impaired, so that he was incapable of much exertion, being, indeed, confined to the house for more than eight years. About the age of twenty-eight, his general health began to mend; although still troubled with cough. For the next fifteen or twenty years, he was able to perform some labor, though not without considerable inconvenience from the symptoms above mentioned. In January, 1844, for the first time, since the third year of his age, the cough suddenly left him, and did not return for several months, when it again began suddenly to harass him as before. On the 8th of October, 1845, he experienced a remarkably uneasy sensation, of a pricking nature, deep in the right side, which excited violent coughing, and after one or two severe paroxysms, he experienced a sensation as if something had ruptured, or given way. This was instantly followed by the passage of something into the trachea, producing suffocation, which was forcibly ejected upon the floor, succeeded by the expectoration of purulent matter streaked with blood. On examination, the foreign body turned out to be a *bone*, nearly three fourths of

an inch in length, one fourth of an inch in breadth, and one twelfth in thickness, oblong and somewhat triangular in form, smooth and convex upon one surface, the other covered with sulci and protuberances. It appeared that the bone which he had originally swallowed, from the traditionary accounts preserved in the family, was a splinter from a rib from which he was sucking the meat, and it seemed highly probable, on examining the piece ejected, that this also was originally a portion of the same bone, as the spongy lamellæ were still visible on one side, while the smooth convex surface of the other was equally manifest. Now, then, are we not authorized in believing that this bone was lodged in one of the rami of the right bronchus for this long period of 60 years, producing the phenomena, which I have briefly described.—*New York Journal of Medicine, and the Collateral Sciences.*

Case of suspension of the mental faculties, of the powers of speech, and special senses, with the exception of sight and touch, occurring in a young woman, and continuing for many months, in consequence of her having accidentally fallen into a river, and being nearly drowned, By Robert Dunn, Esq., Surgeon.—Many and curious are the instances which have been recorded of the arrest, suspension, and, at the time, apparent obliteration of the most ordinary functions of the nervous system, in consequence of a sudden shock, agitation or fright.

Such cases are not more startling to the minds of common observers, than they are interesting to the physiologist and medical inquirer. The following plain narrative of an interesting case, which has come under my observation, may not be unworthy of the notice of my professional brethren. The subject of the narrative is a young woman, now in the nineteenth year of her age, of a mixed temperament, the *nervous* with the *lymphatic*, and, as the medical attendant of the family, I have had frequent opportunities of seeing her since she was two years old. She was the first child of her parents, and came prematurely into the world, about six weeks before the usual term of gestation. No reasonable hope was at first entertained that she could live. She had not strength to suck, but the milk, of which, fortunately, there was an ample supply, was drawn from the breast, and she was fed with it by a spoon, and from a nursing bottle. At the end of six weeks, the completion of the reputed time of gestation, she was in

convulsions for nearly an entire day, and all hope of her living was extinguished; but, nevertheless, she did survive, and from this time she began to thrive, to the great astonishment of every one who had seen her. She improved rapidly, and when, at four years old, she was inoculated for the small-pox, she was a fine, strong, and healthy child, stouter and larger than most children at her age. A custom prevailed in the village to which she was removed, and where, indeed, she had been born, that whenever the *small-pox broke out naturally*, as it was termed, among the inhabitants, the other children of the village should be *inoculated* if their parents or friends thought proper to have it done. At other times, inoculation was not permitted. She was, accordingly, inoculated, and had the small-pox so severely that it nearly cost her her life. She passed favorably through the other ordinary diseases of childhood, with the exception of scarlatina, which she had in a severe form when she was ten years old. After the attack of scarlatina, she enjoyed uniformly good health, up to the date of the present narrative, and grew up a strong, robust, and hearty young woman. Her perceptive powers were naturally quick, and, being largely endowed with the imitative faculty, she was put to the business of a milliner and dress-maker. Two years ago, her health beginning to suffer from long and close application to business, she went, on my recommendation, to her grandfather's, in the county of Kent, and, while there, the following accident occurred:

On the 14th of July, 1843, as she was walking with her aunt, by the side of the river, which runs through the park of Sir Percival Dyke, of Lullington, she accidentally let a parcel which she was carrying slip from her hands, and in the effort to save it fell into the water. She laid hold of the grass upon the side of the bank, but this giving way, she again fell backwards into the water. Her aunt immediately ran for assistance, but on getting back nothing was to be seen, but, about twenty yards below the place where the accident had happened, a part of the girl's shawl was observed to be floating upon the surface of the water; and from this place she was eventually dragged, in about a quarter of an hour from the time of her falling in, in a state of suspended animation. She was carried to the house of Sir Percival Dyke, where she received every attention. A medical man was sent for, and after the lapse of about six hours, she became sensible, and so far recovered as to be well enough to be removed, on the afternoon of the following day, to her grandfather's house at Shoreham. Though she was now sufficiently recovered to give some ac-

count of the accident, and of the state of her feelings after falling in, on her first attempt to get out, she was far from well, complaining of great uneasiness about the bowels, and of pain in the head. The bowels were obstinately constipated; there was no evacuation, from the day of the accident until the 20th of the month, a period of seven days; and when the constipation gave way, the alvine dejections proved that both mud aud gravel had passed into the stomach. On the 24th, she was seized with a fit (up to this time she had been quite sensible,) and is described as lying in the fit in a state of complete stupor for nearly four hours, when she opened her eyes, but was deprived of the powers of speech and hearing, and of the senses of taste and smell; her mental faculties quite benumbed or paralyzed, giving no indication that she recognized any of her friends about her. The head was shaved, and covered with ice; a blister applied to the nape of the neck, and other remedial measures adopted. I regret that I cannot furnish more precise information as to the nature of the fit, and of the treatment pursued. I have written twice to Mr. Richards, on the subject, but have not been favored with any reply to my notes.

After the lapse, however, of about three weeks, she was so far recovered as to be able to be removed to London; and I saw her, for the first time after the accident, at her own home, on the 8th of August. She did not, or rather could not, recognize me, for her physical faculties were quite suspended; indeed, her only medium of communication, at this time, with the external world was through the senses of *sight* and *touch*, for she could neither *hear nor speak, smell nor taste.* Her vision, at short distances, was quick, and so great was the state of exaltation of the general sensibility upon the surface of the body, that the slightest touch would startle her; still, unless she was touched, or an object and person was so placed that she could not avoid seeing the one or the other, she appeared to be quite lost to everything that was passing around her. She had no notion that she was at home, nor the least knowledge of anything about her; she did not even know her own mother, who attended upon her with the most unwearied assiduity and kindness. Her memory, and the power of associating ideas, were quite gone. Wherever she was placed, there she remained throughout the day. She was very weak, but her bodily health was not much deranged; the tongue was clean; the skin moist; and the pulse quiet and regular; but the bowels sluggish. At the time of the last menstrual period there had been considerable general irrita-

bility, attended with some febrile disturbance, and with an increase of heat about the head, and these symptoms I noticed on subsequent occasions. The catamenia had followed immediately upon the accident; it re-appeared at the proper time, and continued regular and copious throughout her illness. Her appetite was good, but having neither taste or smell, she ate alike indifferently whatever she was fed with, and took nauseous medicines as readily as delicious viands. She required to be fed; when I first saw her, she had no notion of taking food that was placed before her, but, a few days afterwards, if a spoon was put into her hands, and filled by her mother, and conveyed for a few times to her mouth, she would afterwards go on by herself until the whole was eaten.

Her wants were sedulously attended to, but she manifested no uneasiness as to food, however long she might be kept without it. The same thing was observed in reference to drink. The calls of nature were alike unheeded by her; the urine and fæces were voided *unconsciously*, but with the striking peculiarity, that, during the expulsion of fæces, such was the *reflex action* induced that the extremities became spasmodically convulsed and rigid; the head was thrown backwards; the muscles of the neck were stiff; and the eyelids closed; so that her mother considered that her bowels never acted without her having what she called "a convulsion fit;" the same thing occasionally happened when the bladder expelled its contents, and what is still more remarkable, the same tonic rigidity of the muscles invariably took place whenever she went to sleep. Every night when she was placed upon the bed, she remained for some time in a semi-recumbent posture, after which the eyelids closed and the head fell backwards upon the pillow; the hands were clenched; the muscles of the neck stiff; the arms and legs in a state of tonic rigidity, the latter always crossed the one upon the other; after a time, the muscles became relaxed; she turned upon her side, and slept soundly until the morning.

Such was the state in which I found the young woman on her arrival in London, nearly one month after the occurrence of the accident, and I may here anticipate the narrative by stating that from the time her mental faculties became suspended, in the fit on the 24th of July, 1843, until the July of the following year, when they were again restored—her life, to herself, is *one continued blank*. She has not the slightest knowledge or remembrance of anything which took place during the interval. I put her at once upon a course of tonic medicine, giving her of the compound mixture of iron ℥iss.

three times a day, and a frequent aperient of the aloes and myrrh-pill, adding, occasionally, a few grains of blue pill.

One of her first acts on recovering from the fit had been to busy herself in picking the bed-clothes, and, as soon as she was able to sit up and to be dressed, she continued the habit by incessantly picking some portion of her dress; she seemed to want an occupation for her fingers, and, accordingly, part of an old straw bonnet was given to her, which she pulled to pieces of great minuteness; she was afterwards bountifully supplied with roses; she picked off the leaves, and then tore them into the smallest particles imaginable. A few days subsequent she began forming upon the table, out of these minute particles, rude figures of roses and other common garden flowers; she had never received any instruction in drawing.

Roses not being so plentiful in London, waste paper and a pair of scissors were put into her hands, and for some days she found an occupation in cutting the paper into shreds; after a time these cuttings assumed rude figures and shapes, and more particularly the shapes made use of in patch-work. At length she was supplied with the proper materials for patch-work, and, after some initiatory instruction, she took to her needle, and in good earnest to this employment. She now labored incessantly at patch-work from morning till night, and on Sundays and week-days, for she knew no difference of days nor could she be made to comprehend the difference. She had no remembrance from day to day of what she had been doing on the previous day, and so every morning commenced *de novo*. Whatever she began, that she continued to work at while daylight lasted, manifesting no uneasiness for anything to eat or to drink, taking not the slightest heed of anything which was going on around her, but intent only on her patch-work. Occasionally, indeed, and not unfrequently two or three times in the course of the day, she would have what her mother called her "fits." Whilst intent upon her work, and without any external exciting cause, her head would fall backwards, her eyelids close, her arms and legs become rigid, and her hands clenched. After a short time, varying in extent from a few minutes to half an hour or more, the muscles would become relaxed, the eyes open, and she would resume her work, apparently unconscious that anything had happened. About this time she began to show indications of feeling interested in the figures of the flowers and buds, &c., upon the silk and other materials which are made use of in patch-work. The perception of colors, and the exercise of the imitative faculty, were the first evidences she exhibited of physical ad-

vancement in her present state. Although she had received a good plain education, and had been very fond of books, now she could neither read nor write, nor even be made to comprehend the letters of the alphabet. All her former knowledge and past experience appeared to be obliterated, or at least, for the time, to be buried in oblivion, with one exception—a feeling of dread or fright in connection with water; and she now began, *de novo*, like a child, to acquire ideas and to register experience. Admitting that the senses are the only inlets of all the materials of knowledge, and that—"Nihil est in intellectu quod non prius fuerit in sensu," it was not to be expected when in this abnormal condition, with only the senses of sight and touch in communion with the external world, that her progress could be otherwise than slow in the extreme. However, she evinced an interest in looking at pictures and prints—more especially of flowers, trees, and animals—but when shown a landscape in which there was a river, or the view of a troubled sea, she became instantly excited and violently agitated, and one of her fits of spasmodic rigidity and insensibility immediately followed. If the picture were removed before the paroxysm had subsided, she manifested no recollection of what had taken place, but so great was the feeling of dread or of fright associated with water that the sight of it in motion, its mere running from one vessel to another, made her shudder and tremble, and in the act of washing her hands they were merely placed in the water. After she had been at home a fortnight, I had the benefit of frequent consultations with my friend, Dr. Todd, of King's College, on her case She had partially recovered her taste, and refused any longer to take nauseous medicines. Dr. Todd expressed his conviction that eventually she would perfectly recover, however gradual and protracted the recovery might be—an opinion which has been fully verified. The accident happened in 1843, and it is only within the last few weeks that she has completely regained her hearing, and the full exercise and enjoyment of her mental and bodily powers. We agreed that the tonic course of medicines should be continued, combining quinine with the iron. We further advised the frequent sponging of the head and spine with cold water, and the use of the shower-bath, as soon as it could be borne. The first attempt, in accordance with our wishes, of running water through a common cullender upon her head, induced such alarming excitement and fright, and was followed by a fit of insensibility of such long continuance, that the experiment was not repeated.—*London Lancet.*

Poisoning by Urine. By G. F. Collier, Esq., M. D.—I present to the public through the medium of "The Lancet," the following curious and instructive case. It abounds with matter for reflection, and it is especially worthy the consideration of those chemical physicians of the present time who are enthusiastically sanguine in their expectations of discovering the "fons et origo mali," and, by consequence, the curative or palliative indications, by reference to a patients secretions; and who confidently pronounce on the abnormal wear and tear of a man's cerebrum, by noting the morbid excess of phosphorus (a cerebral element) in his urine.

The case becomes additionally interesting, and, as I think, valuable, by the circumstance of its having been tested by the lapse of eight years. I shall offer no theories, no conjectures, I think it speaks for itself.

December 13th, 1838.—Thomas P——, of Turnham green, aged thirty-four, a day-laborer working on the roads, presented himself for advice, having for some days been afflicted with a dropsy. His face is very much swollen; and the anasarca generally more prominent in the upper, than in the lower, parts of the body. He says, that until now he scarcely knows what it is to be ill; that at, and since, the fall of the leaf he has had a troublesome eruption to which he had been many years occasionally subject; as it lasted longer than usual, he was advised by an old woman to drink his own urine for nine days, taking early in the morning, on a fasting stomach, precisely the whole quantity voided on going to bed; says he got through the nine doses, but thinks he began to swell before he had finished the course; he has fluid in the abdomen, and the parietes of chest and belly, swelling, however, greatest in the upper parts; the urine is scanty, thick, deep brown, and very offensive; he has a heaviness of the head, increased on stooping, and his own words are, that he feels too heavy for work, having neither his usual warmth nor life in him; he has little thirst; his pulse is under 90; his countenance pale, and its expression heavy and vague; he walks with a stick because, he says, he feels the want of support; he has not been unusually exposed to cold or to wet, and is of temperate habits; the urine is not albuminous; he loses his breath if he walks quick, and is obliged to stop. Deeming this case to be due to the poisonous impression, or to the ingestion of the urine by endosmosis into the circulation, I ordered a smart purgative of calomel and colocynth, and afterwards six pills of calomel, squill, and digitalis, with heath broom tea. The water was all dispersed, and the man back to his work within ten days;

he required no repetition of the medicine; the urine did not pass as it was used to do before this illness, till the ninth day.—*Ibid.*

French Medical Congress.—An association of medical men, numbering now upwards of four thousand, has recently been formed in France, with a view of aiding and accelerating measures of medical reform, promised sometime since by the government. Early in November, the members of this association assembled in Paris, under the title of a 'Medical Congress,' and we are happy to learn that its meetings have been characterized by great zeal and intelligence, and have received all due countenance from the government itself—notwithstanding the jealousy with which it looks upon every popular combination having for its aim any reform of existing abuses, or rather interference with regular legislative action. M. Serres was President. Committees were appointed and reported on the topics of medical legislation, education and government; and resolutions have been adopted by the Congress, to be submitted to the Minister of Public Instruction, which embraces the views of that body on the entire subject of medical government.

The Committee appointed to examine the question of freedom of medical instruction, terminates with the following recommendations:

1st. Every member of the medical profession in France, should enjoy the right of teaching the medico-chirurgical sciences.

2d. In order that the freedom of medical teaching shall be as extended as possible, government should, in Paris and the principal towns of France, place a suitable locality, and all the material appliances necessary for practical teaching, at the disposal of every member of the medical profession.

3d. Private teaching should in no way infringe on the official education in the faculties and colleges, and should therefore confer no scholastic privilege, but merely aid in diffusing knowledge.

The first question discussed (relating to the exercise of the medical profession) was that of the existence of two orders of medical practitioners. The expediency of having an inferior grade of practitioners was denied, and the institution of officers of health was declared illegitimate and dangerous. This opinion was clearly announced in the following resolu-

tion, which was carried unanimously: That it is to be hoped, that in any future medical law one class of medical practitioners only will be recognized, that of doctors in medicine. That should such a decision be come to, existing officers of health might be allowed, during five years, to offer themselves as candidates for the M.D. degree at any of the faculties.

It was also decided at the same time, that the institution of district medical officers, to take care of the poor, was not necessary, and would be an attack on the liberty of the medical body. (This decision of the congress was arrived at in opposition to the wishes generally expressed in the documents received from the provinces.)—*Bulletin Med. Sci.*

M. Serres' Address on opening the Medical Congress of Paris.—The deliberations of the congress were opened by a short, but most energetic address from M. Serres, the president, of which the following is a summary:

"Gentlemen, and dear colleagues,—Social epochs present characters which distinguish them, and stamp their impress upon them. The ruling character of the nineteenth century is, the tendency to perfecting the physical and moral welfare of man. Sciences, arts, private and general industry, every thing tends towards this end; every one is carried along by this general movement, men as well as governments. Among human sciences, there is one which, for the last three thousand years, investigates the wants of humanity, and ever meditates upon them. To this science humanity owes, in a great measure, the physical welfare which it now enjoys. This science is medicine, the dominion of which embraces surgery, pharmacy, and the veterinary art. Thus it is that the medical family folds, as it were, within its arms, society in general. It ploughs the waves with our vessels. It accompanies our soldiers in the camp, and on the field of battle. It watches at the domestic fireside, in hospitals, and in prisons. Human vicissitudes meet it nearly everywhere, and everywhere they find it prepared to make the greatest sacrifice. The more important, the more indispensable, the services which the medical body renders to society, the more attentive a government should be to the institutions which regulate it. Thence the anxiety of our government to improve the laws which govern medical institutions. It is our duty to acquire as much information as possible, in order that we may be of the greatest possible utility to our fellow-creatures. It is the duty of

government to protect us in the application of the knowledge we have thus acquired, and to see that all the members of the social body benefit by it. One of our great men has said, 'I know nothing in the world more contemptible than a cowardly soldier, or than an ignorant medical man; the first is contemptible, because he compromises the fate of his country in the day of danger; the second, because he compromises, hourly, the life and welfare of his fellow-creatures.' Thanks be to heaven, there is not a cowardly soldier in France, and government is under the obligation to society to employ all its power to render it *impossible* that there should be such a person as an ignorant medical practitioner.—*London Lancet.*

Effects of Lightning.—Our readers will doubtless recollect a remarkable paper, published in a former number of our Journal, entitled "extraordinary effects of a stroke of lightning," by John LeConte, M. D., of Savannah, Georgia. In a recent letter from the distinguished writer, we have the following additional particulars, in relation to some of the cases there mentioned:—

"SAVANNAH, Dec. 4th, 1845.

"DR. LEE: My Dear Sir,—Thinking that you might be interested in hearing something further concerning the history of the cases which formed the subject of my paper on the 'effects of lightning,' which was honored with a place in the 'New York Journal of Medicine, and the Collateral Sciences,' for Nov., 1844; I have concluded to avail myself of the privileges of a correspondent.

"You will recollect that only two out of the five negroes who were struck down, survived the shock, viz. cases four and five. Charlotte (case 4), up to the time she was struck by the lightning, had never been pregnant, although she was then past 29 years of age. The electricity seems to have produced a remarkable impression upon her uterine functions, causing a manifest derangement of the catamenial flux, as already noticed in my previous details of the case. During the early part of the last summer, she became pregnant for the first time in her life, and will shortly be confined!! She has been married about ten years. It is impossible to determine whether the establishment of the reproductive functions in this case, is in any manner connected with the powerful shock sustained by her nervous system; but, perhaps, the fact is not unworthy of note, when taken in connection with the extraor-

dinary impression which was made upon the uterine functions in both of the survivors.

"Sarah (case 5), the woman past 70 years of age, in whom menstruation was re-established after twenty years' cessation, still continues to menstruate with perfect regularity up to the present time, more than two years and five months since she was struck by lightning!! Her health still continues very good.—*N. Y. Jour. of Med.*

Turpentine in Large Doses in the Treatment of Purpura Hæmorrhagica. By J. Moore Neligan, M. D., M. R. I. A.—It is now very generally admitted that there is not the least similarity, either in their nature or origin, between purpura hæmorrhagica and the scurvy of seamen. Nevertheless, this idea, the correctness of which was so strongly insisted on by Willan, still influences much the opinions of many practitioners, with reference to the treatment of this disease; and the statement put forward by our great English authority on skin diseases, "that the treatment of this disease is simple, and may be comprised in a very few words: a generous diet, the use of wine, Peruvian bark, and acids," is, even in the present day, too indiscriminately adopted. On the other hand, we find it laid down by numerous writers on the disease, who adopt the opinion of Dr. Parry, *that it is always of inflammatory origin*, that early and free venesection alone holds out any hope of successful treatment. My intention in the present communication is, without attempting to reconcile or account for these conflicting opinions, to narrate some cases of purpura which were speedily and effectually cured by the administration of turpentine in *large doses*, and at the same time to state the reasons which first led me to employ it.

In the ninth volume of the "Edinburgh Medical and Surgical Journal," Dr. Harty, of this city, in a communication to Dr. Bateman, of London, details some cases of purpura simplex, and of purpura hæmorrhagica, in which the free employment of purgatives was attended with marked and rapid success. The purgatives employed by him were calomel and jalap; and he states that he was induced to adopt this mode of treatment of purpura from incidental remarks of the good effects of purgatives in his disease, to be met with in the writings of Heberden, Hoffman and others. In the spring of 1840, while acting for a few months as one of the physicians of the city of Cork Dispensary, I met with eight cases of

purpura hæmorrhagica of the worst form. The district which I had the charge of (Blarney-lane and its neighborhood) being one of the poorest in the city, the individuals who were attacked with the disease were nearly all of broken-down constitution; owing to outwork and insufficient nutriment. Having, in consequence of the asthentic character of the disease, treated the first two cases which came under my care, on the tonic plan, without success; in the next case I met with I had recourse to the employment of free purgation, but the case, which, however, was not seen until the disease was very far advanced, also terminated fatally. The fourth case, in which the individual was younger and of a more robust habit of body, terminated favorably under the free use of purgatives, employed as directed by Dr. Harty.

From the result of these four cases I was, of course, led to place but little reliance on the use of bark and acids in the treatment of this disease, and to look more favorably upon the employment of purgatives. I thought, however, that still more favorable results might be expected from the administration of the oil of turpentine, which, while it acts as a powerful cathartic, also possesses the property of checking hæmorrhage, depending on an atonic state of the smaller blood-vessels, owing, probably, to its powers as a diffusible stimulant. In consequence of those views, I employed this remedy in the four cases that afterwards came under my care while in charge of the district, and they all recovered. I prescribed the oil both in the form of draught and of enema; the usual dose for adults being from one ounce to an ounce and a half, and for children from two drachms to half an ounce, generally in combination with castor oil, to render its cathartic action more certain.

Since that time I have employed oil of turpentine in every case of purpura which has been under my care, and its use has been invariably attended with beneficial results. The mode of its administration, and the effects which it produces, will be better understood from a perusal of the following cases, the two first of which I have selected as being evidences of the effects of the remedy, both in the child and in the adult, and also as having been witnessed by the clinical class in the hospital; and the third, in consequence of its having been attended, in consultation, with an intelligent practitioner of this city, who was at first adverse to the use of the oil of turpentine in such large doses.

Case I. Reported by Dr. J. O. Curran.—*Sore Throat, Anorexia, and general Depression of a Patient exposed to Conta-*

gion of Scarlatina; Occurrence of Purpura Hæmorrhagica four days after; Turpentine per Os et Anum in large doses; rapid and uniform recovery.—Anna Welby, a remarkably fine-looking child, six years of age, was admitted into Jervis-street Hospital on the 11th of April, 1843. She is robust, but very pale, and her countenance has a most languid and anxious expression; the lips and nostrils are covered with blood of a dark color, which has coagulated over them, and blood is oozing slowly from the margins of the gums; an eruption of small circular spots, about two lines in diameter, and varying in color from a blackish purple to the hue of arterial blood. is thinly and pretty uniformly diffused over the whole body; the spots are nearly all of the same size, and perfectly circular, but a few closely resemble vibices both in color and outline; the color of the eruption is not in the least affected by pressure, nor by the part of the body in which it occurs; a few spots are sensibly prominent, and there are also some which are mere bloody vesicles, and which rupture under slight pressure with the nail; one or two spots are situated on the red margin of the lips, as well as on the mucous membrane of the mouth; the tongue is moist and slightly furred, and the papillæ, which are red and prominent, give it a mottled appearance; the fauces are very red, and the right tonsil considerably enlarged, puckered, and of a deep brownish-red color; the pulse 120, small and hard; the respiration quiet, and there is no cough or expectoration.

The history of the case is shortly as follows:—patient slept in the bed with her brother and sister, who had just been attacked with scarlatina. On Thursday (the 6th) she was observed to change color several times, she abandoned play, and could not be induced to eat anything. The following day she complained of her throat being very sore, and her mother observed that it was swollen; sickness was also complained of. The next day there was no alteration. On Sunday morning the eruption was first perceived; her gums were then bleeding, and in the course of the day she passed blood by urine, by stool, and also by vomiting; she had also several attacks of epistaxis, which, however, were very slight, and subsided spontaneously; on the next evening she was admitted in the hospital.

April 12th. Was very restless during the night, and could not be induced either to eat or drink anything; slept little; this morning her countenance has the same appearance of languor, there is more depression, but the pulse, &c., continue as before; the patient will not answer questions, nor even

open her mouth, or put out her tongue when desired to do so.

Many new spots have made their appearance; they are of a florid-red color, whilst the hue of those previously noticed has become darker; no new vibices have been observed, and there has been no epistaxis since her admission; blood oozes from the gums, and occasionally from the nares, which the patient is continually irritating with her fingers; the urine is said to have been of a porter color, but it was not preserved; the bowels have not acted since her admission. ℞. Olei terebinthinæ, olei ricini, utriusque, ʒiii, Aquæ menthæ piperitæ ℥ss. Misce, Fiat haustus statim sumendus, et vespere, ni alvus prius responderit, repetatur.

April 13*th*. The above draught was given twice, but it speedily excited vomiting; the whole of the medicine, however, did not appear to have been ejected from the stomach; it had no action whatever on the bowels, and consequently five grains of calomel, with an equal quantity of scammony, were administered at bed-time, by the directions of the house-surgeon.

The eruption is unchanged; the skin is hot; the pulse hard, and ranging about 130; the tongue has lost the mottled appearance which it presented on the day of admission, but it is still slightly furred; the fauces are red, but the swelling of the right tonsil is diminished.

The bowels have not been moved; there is no pain complained of, the respiration is but very slightly accelerated, and there is no cough whatever. ℞. Olei terebinthinæ, olei ricini, *aa* ℥ss, decocti hordei, ℥x, Fiat enema, statim adhibeatur.

April 14*th*. The injection operated freely, bringing away a considerable quantity of feculent matter, intimately mixed up with grumous blood.

The improvement in the appearance of the patient is of the most marked and decided character. The countenance has partially regained its color and animation, and the patient is sitting up in bed, amusing herself, and readily answering questions. The pulse is less frequent and not so hard; the tongue quite clean and moist; the skin cool. No new spots have made their appearance, and those which were previously present have become much darker-colored. ℞. Olei terebinthinæ, olei ricini, *aa* ʒii. decocti hordei, ℥x, Fiat enema, hodie injiciendum.

April 15*th*. Continues to improve. The enema to be repeated.

April 16*th*. Dejections still consist almost wholly of grumous blood, but mixed with a much larger and very evident

proportion of feculent matter. Pulse 120; respirations 24; skin of natural temperature; eruption much faded; expression of countenance cheerful and healthy. The enema to be repeated.

April 17*th.* Had two perfectly natural dejections after the enema; feels and looks quite well: spots very much faded.

April 20*th.* Countenance quite healthy and lively; eruption scarcely perceptible. The bowels being confined, she was ordered a mild purgative of calomel and scammony.

April 24*th.* Discharged cured.

This child was admitted into hospital again on the 2d of January, 1845, nearly two years afterwards, laboring under a second attack of purpura, not nearly so severe, however, as in the first instance. The oil of turpentine was administered to her in the form of draught, uncombined with castor oil, the quantity prescribed being two drachms, night and morning, for five successive days; it was given floating on the surface of peppermint water, in which form it was retained by the stomach, and produced from three to four stools daily. She was quite well on the 7th instant, the sixth day after the appearance of the spots, but she was kept in the hospital until the 12th of January, for fear of a relapse.

Case II. *Purpura Hæmorrhagica, occurring in an adult, cured by large doses of Oil of Turpentine.* Reported by Mr. Farmer.—William Flannagan, aged 50, a laborer, admitted into Jervis-st. Hospital, July 1, 1845. The entire surface of the body and limbs is covered with small circular spots, of various size and color; from half a line to a line in diameter, and varying in color from the florid red of arterial blood to a purplish-black hue. There are also several large, ecchymosed patches of a deep greenish-purple color; those are situated chiefly on the right mamma, the elbows, the loins, and the backs of both legs. Firm pressure produces no effect on either the small or large spots. He complains very much of weakness, with pain in his back, which, together with a feeling of great lassitude, has, from the commencement of his illness, altogether prevented him from working. He is constantly coughing up a frothy serum, deeply tinged with blood; the gums also bled slightly, and he states that, previous to his admission into the hospital, he passed bloody stools. The pulse beats about 60 in the minute, but is feeble and very compressible. The body is emaciated, and the countenance very expressive of anxiety.

In early life the patient was addicted to intemperance, nevertheless he enjoyed perfect health until the first attack of the

present disease, which was about six months ago. Since that time he has been repeatedly attacked with the disease, but at no time so severely as at the present. He was in a hospital during the first seizure, where he was cured of it, but it reappeared in three months afterwards; he was again admitted into the same hospital, but having been discharged before the spots completely disappeared, they in a few days began to increase in size and in number, and he has never been free from them since. The great size of the vibices, together with the bloody dejections and sputa, and the complete prostration both of mind and body, compelled him at length to seek admission into this hospital.

July 2d. Many new spots have made their appearance since yesterday, and the bowels have not been moved since his admission. ℞. Olei terebinthinæ ʒiss, surupi ʒii, aquæ menthæ piperitæ ʒii, Misce, Fiat haustus statim sumendus.

July 3d. Was somewhat intoxicated yesterday after taking the draught, which vomited and purged him freely, the stools being slightly mixed with grumous blood. He feels much better to-day, and eats with an appetite, which he has not done for some time. The spots are darker colored than on admission, and some new ones have made their appearance, but the sputa are not so bloody.

July 4th. The large blotches are faded, and turning of a yellowish-green color, while the small spots are disappearing; sputa still tinged with blood; bowels not moved yesterday. ℞. Olei terebinthinæ ʒiss, olei lini ʒi, decocti hordei ʒxvi. Fiat enema, et statim adhibeatur.

July 5th. The patient is improved in every respect, with the exception of the sputa, which are more bloody; the bowels were affected only once by the enema; there is no appearance of blood in what he passed. ℞. Olei terebinthinæ ʒi, syrupi ʒss, aquæ menthæ piperitæ ʒii, Misce: Fiat haustus, statim sumendus.

July 7th. Still improving; both large and small spots are gradually disappearing; bowels rather confined. The draught to be repeated, and to have full diet.

July 9th. Feels quite well to-day; none of the small spots to be seen, and the larger blotches much diminished in size; has had no expectoration for the last two days; as the bowels were confined, he was ordered the common castor oil draught.

July 12th. Flannagan was discharged to-day quite cured, having been kept in hospital until all the stains disappeared from the skin.

The third case was that of a delicate child, five years of

age, whom I attended in consultation with my friend, Mr. Dobbyn, of D'Olier street, in May, 1843. After two days' slight fever, the entire body became, in one night, thickly covered with spots of purpura, while two large vibices were apparent on the nates, evidently produced by the pressure of the body on that part; the bowels were free, but the stools consisted of feculent matter, intimately mixed with blood. The oil of turpentine was administered to her in the form of draught, in doses of two drachms and a half twice daily. She was only five days confined to bed, and on the sixth day scarcely a trace of the disease could be perceived on any part of the body.

This case I look on as being particularly interesting, when considered in connexion with that of Welby, the first case I have related in this communication, inasmuch as this was an exceedingly delicate child, of a rather strumous habit of body, while the girl Welby was a fine, healthy-looking child, with, after her recovery, a very florid complexion. It thus appears, that this mode of treating the disease is equally applicable when it occurs in the robust as in the debilitated—a fact which is fully born out by the experience I have had of it for the last five years.—*Lond. and Ed. Monthly Journal.*

Hereditary Predisposition.—There is no subject connected with medicine which would more amply repay a scientific investigation than this. The facts are numerous, and can be arranged on an irrefragible general principle, namely: that every portion of the body of the offspring participates more or less in the physiological conditions of the parents. The first step in the inquiry would be, to ascertain the physiological laws of hereditary transmission. The true direction in which to seek this is in embryology, and particularly in the development of tissues. Dr. Siebert remarks, to illustrate our views, that the gout of the parents may appear in the offspring as stone, or disease of the heart. This we know to be true, and the explanation, we conceive, is, that the serous layer of embryo has received the hereditary predisposition of the parent. This predisposition is shown in a tendency to disease of the embryonic products of the serous layer, namely, the proper serous membranes and the bones and muscles with their appendages, namely, sero-synovial sacs, tendons, cartilages, &c. With this predisposition a mordid action in and a metamorphosis of the serous tissues is

more frequent. Thus, in persons of this constitution, the muscular and tendinous fibres, and the cartilages, will change into bone—the serous membranes into cartilage—while the sub-serous membranes of the hollow muscles become the nidus of ossific deposits. Dr. Siebert remarks that gonorrheal fathers have scrofulous rachitic children. In this example, the mucous layer of the embryo and the mucous surfaces and tissues derived therefrom have the morbid predisposition of which the gonorrhea and the scrofula are special manifestations.

Special organs suffer also hereditarily, just as minute personal traits are transmitted to offspring. M. Boucher inquired into the fate of 58 individuals, the offspring of 14 epileptic females. Of these 32 died of convulsions in infancy, and of the 26 remaining, 7 had different nervous affections, 2 convulsions of an intermittent type, 2 were epileptics, and 1 hysterical; so that 14 only of 26 who grew up, remained free from disease of the nervous system. As we shall revert to this important question elsewhere, nothing more need here be said, except that Dr. Siebert's discussion of the subject is superficial and contains nothing novel.—*Brit. & For. Med. Rev.—Bul. Med. Sci.*

Confident Expectation in the Cure of Disease.—Dr. Paris mentions a curious example of the salutary effect of confident expectations in the relief of disease. When the powers of the nitrous oxide were discovered, Dr. Beddoes at once concluded that it must be a specific for paralysis: a patient was selected for the trial, and the management was entrusted to (Sir Humphry) Davy. Previous to the administration of the gas, the young chemist inserted a small pocket thermometer under the tongue of the patient, as he was accustomed to do upon such occasions, to ascertain the degree of animal temperature, with a view to future comparison. The paralytic man, wholly ignorant of the nature of the process to which he was to submit, but deeply impressed, from the representations of Dr. Beddoes, with the certainty of its success, no sooner felt the thermometer under his tongue, than he concluded the *talisman* was in full operation, and in a burst of enthusiasm declared that he already experienced the effect of its benign influence throughout his whole body: the opportunity was too tempting to be lost; Davy cast an intelligent look at Mr. Coleridge, and desired his patient to renew

his visit on the following day, when the same ceremony was performed, and repeated every succeeding day for a fortnight, the patient gradually improving during that period, when he was dismissed as cured, no other application having been used.—*Med. Chir. Rev.—Ibid.*

On the Use of Electricity in Exciting Uterine Action during Delivery.—I was requested to see Mary Cook, æt. 39 years, in her sixteenth confinement, on Friday morning the 16th of June.

On my arrival at the house, I learned that her previous labors had been tolerably good, with two or three exceptions, when they had been considerably protracted for want of pains. Her health has always been delicate, and for the last few weeks she has had a troublesome cough, attended with copious expectoration; emaciation and occasional night-sweats —symptoms which naturally led to the opinion that she was suffering from phthisis, although subsequently this diagnosis was not confirmed by a physical examination of the chest. On the Sunday evening prior to my visiting her, she was first attacked with premonitory labor, soon succeeded by regular and frequent pains, which, on the following morning, abated, but never entirely left her till Wednesday night when the liquor amnii was discharged.

At 1 A.M. on the Friday, the pains returned with considerable vigor, but did not last above an hour, and at 6 o'clock were again renewed for a short time. It was about four hours after this period that I found Mr. T. with the patient, to whom he had given a dose of the tincture of ergot, and also some spirit and water; but these measures were followed by only a few slight and ineffectual pains.

On making an examination, I found the vagina freely lubricated, the os uteri dilated, the head of the child small, presenting in the right oblique diameter, and in the pelvic cavity; in fact, there appeared no obstacle whatever to the completion of the case but uterine inertia, which I considered was owing to constitutional debility, arising chiefly from the state of the chest. She had rather an anxious countenance, a small and frequent pulse; complained of great thirst and languor, and of having had no sleep for several nights.

It was obvious that if uterine contraction could not be somehow induced, and it must be remembered that the ergot had been already tried, the alternative would be instrumental

delivery; and this, considering the weak state of the patient's health, and the most improbable and unpleasant result of hemorrhage from atony of the womb was not desirable.

At the suggestion of Dr. Lever, who kindly lent me his electro-galvanic apparatus, I resolved on a fair trial of galvanism, and accordingly, with my friend, Mr. Richardson, proceeded to its application externally and obliquely across the anterior surface of the uterus. In a few minutes the effect was apparent. Regular, strong, frequent pains came on, and in a quarter of an hour from the first application of the remedy, a living male child and placenta was expelled, attended with the least degree of hemorrhage I ever witnessed.

The uterus was immediately firmly and permanently contracted, and, with the exception of slight soreness of the abdomen, the patient expresses herself as quite comfortable, and, up to the present time, setting aside debility, she has progressed favorably.—*Med. Gaz.—Ibid.*

Rapid Death from Oxalic Acid.—Dr. Ogilvy, of Coventry, has communicated to the Lancet a case of poisoning by oxalic acid, in which it is probable that death took place within *three minutes* after the poison had been swallowed. The sister of the deceased had been absent from the room about that period, and on her return found her dying. The quantity of poison taken could not be determined. The only other remarkable circumstance in the case was, that the coats of the stomach were so softened, that on an attempt being made to remove the organ, they were lacerated by the weight of the contents. This was probably a chemical action post-mortem. The intestines and left lobe of the liver were also found softened, as if by transudation. We believe this to be the most rapidly fatal case on record.—*N. Y. Jour. of Med.*

The Late Dr. James Johnson.—It would be treason to the Literature of Medicine, and a wrong to the memory of an able physician, to suffer the death of Dr. James Johnson to pass without some notice. If the pursuit of knowledge under difficulties is honorable—if its attainment by incessant industry is laudable—if the example of a man rising without friends, or family, or wealth, to a high place in his profession, and to general estimation with the public, is calculated to be useful

to those whose career is yet to be run—then a sketch of the life of Dr. James Johnson will not be without its value. We regret that our space is too limited to admit of such ample details as we could wish; but that regret is diminished by the conviction that the present editors of the "Medico-Chirurgical Review" will supply our deficiencies.

James Johnson, or, rather, Johnston, for such was really his name, was the youngest son of a family of Scotch extraction, settled on the banks of Lough Neagh, in the county of Derry, in Ireland. Like Codden, he might boast that he was a "farmer's son." Born in February, 1777, and dying on the 10th of October, 1845, he was in his 69th year at the time of his decease. His early education, such as it was, he obtained at a grammar-school, kept by a Catholic pedagogue, the brother of the parish priest. The village school-boy was the type of the future man; for he confessed that he was miserable when not at the head of his class, and would sit up till midnight conning the lessons of next day. At the age of fifteen, this instruction, whatever its amount, was at an end, and we may readily suppose that it formed a small portion of that varied, extensive, and miscellaneous information which distinguished him in after life. He was now apprenticed to a surgeon-apothecary in the county of Antrim, whence he was transferred to another in Belfast, and, at the end of four years, went to London, without either money or friends. The manner in whieh he contrived to obtain an acquaintance with anatomy and surgery, at long intervals and by brief instalments, might shame the sybaritic students of our day In 1798, he passed an examination as surgeon's mate, in the Navy, and was appointed to the Mercury frigate, where he devoted every hour to study, visiting the naval hospitals whenever the ship was in harbor, and winning the golden opinions of his captain, who winked at his absence from the ship for some months in the winter of 1799, when he worked night and day in London. At the age of 22, he was made full surgeon in the Navy, and accompanied the expedition to Egypt. His fatigues and exertions produced an illness which compelled him to return to London, where he studied in Great Windmill Street, under Mr. Wilson, who stated in a certificate, that he actually *lived* in the dissecting room. He had expended his last guinea, and midwifery lectures were yet to be obtained. He applied to Dr. John Clarke, who, with characteristic generosity, instantly gave him a ticket of admission, and invited him to his table.

In 1803, he sailed for the East, and during the next three

years, in India and in China, he laid the foundation for his first, and perhaps, most permanent work, "The Influence of Tropical Climates on European Constitutions." Of that work, it is only necessary to observe, that it is distinguished for soundness of physiological views, acuteness of observation, and variety of matter. It is still the text-book of the tropical practitioner, and is likely long to continue so. In autumn 1806, he married Miss Charlotte Wolfenden, of Lambeth, who now survives him, and by whom he has had six children. The eldest and the youngest have followed the profession of their father; the former, Mr. Henry James Johnson, being assistant-surgeon to St. George's Hospital, and the latter, Mr. Alliot Johnson, residing there as house-surgeon. The work on Tropical Climates was not published till 1812, and then at his own risk and expense. Its success was decisive, though not immediate. In 1809, he was at Walcheren, and this and his Indian expedition sapped the vigour of a constitution naturally excellent; for, in the East, he suffered from dysentery, which was destined to cut him off at Brighton, after the lapse of 40 years,—and at Walcheren, he contracted ague, which, as has been the case in many instances, re-appeared in London, and nearly proved fatal to him there.

At the peace of 1814, Dr. Johnson served in the "Impregnable," when the late King William IV., then Duke of Clarence, hoisted his flag, for the purpose of conveying the Emperor of Russia, King of Prussia, &c., to this country. He attended his Royal Highness during an attack of "hay fever," and so pleased was the Duke with him, that he made him his surgeon-in-ordinary, appointed him "physician extraordinary" on his accession, and always treated him with a considerate kindness.

At the conclusion of the war, Mr. Johnson settled at Portsmouth, as a general practitioner, and was getting into good practice, when ambition and ill health both prompted him to try his fortune in London. He had taken out a Scotch degree, possessed about five hundred pounds, had one friend in the metropolis, Sir Wm. Young, and with this stock of worldly means he committed himself, at the age of 41, with a wife and five children, to the mercies of the modern Babylon. Though weak in body, of nervous temperament, and despondingturn, he had that determination and singleness of purpose which discards "impossible" from its vocabulary; like Sheridan, he probably felt "it was in him, and must come out."

It was a bold step for a moneyless and a friendless man to start in London:—it was bolder, at his own risk and expense,

to originate at the same moment the "Medico-Chirurgical Review." But its success was at once the omen and means of his own, and no quarterly medical journal has ever attained a larger circulation, or exerted wider influence. His labors for a long period were arduous—practice in the day was succeeded by the toils of the desk at night; and for fifteen years he wrote every page of a work of considerable bulk, and remarkable for the condensation of its matter. This could not go on for ever. Hæmorrhoids and fistula, for which he was operated on by the late Sir Astley Cooper, and the present Mr. Guthrie, were followed by dyspepsia, in such an aggravated form as those only can understand who know what the malady is to a nervous frame, exhausted by bodily and mental labor. But out of evil comes good. His own sufferings directed his attention to the subject of Indigestion, and were the immediate cause and indeed foundation of his essay upon that complaint. The publication of that work at once raised his practice to as high a pitch as was compatible with his own inclinations and strength. The remainder of his life was as active, though not as chequered and anxious as that which had gone before. Incessantly occupied with his patients, the Review, his various works, (for he was an author to the last,) and his tours of health, in which he engaged with all the ardour of a boy, he could scarcely have been said, except in sleep, to have passed an unoccupied hour. His meals were hurried, he entered into no society, and his life would not seem to have much of enjoyment in it. But it suited his tastes, and was the natural fruit of that restless energy which had made him all that he was. A mere enumeration of his published works, none of them compilations, will be sufficient evidence of his industry, some of them, at least, of his talent as a writer. The list will be found below.

It only remains to weigh, in a few words, his public and private character. The latter is easily disposed of,—a good husband, a kind father, a warm-hearted generous man, his memory is embalmed in the affectionate remembrances of those who were connected with him. As an author, he was remarkable for facility of composition, a felicitious, though not always a correct style, and an original vigour and raciness of observation and expression that redeem some faults, and make his works eminently readable. He may almost be called the Cobbett of Medical Literature, the same boldness, terseness, and straightforwardness being characteristic of the writings of both. The popular seal of success has at all events been set on all he wrote, whether professional or general. Every

production of his pen has met with a large sale, and most of them have gone through numerous editions.

As a practitioner, he was, in many respects, a model. Simple, unostentatious, his kindness was proverbial, and probably no man, since Dr. Baillie, has been more beloved by his patients. His liberality amounted to a fault, (being oftentimes imposed on) and almost indiscriminate. It has curtailed what might have been a large private fortune, but it has achieved its object, for it gratified a kindly disposition, and ministered to the necessities of others. Peace to his ashes, for they are those of an able, and what, perhaps, is better, of a good man.

WORKS BY DR. JAMES JOHNSON.

Tour in Ireland, with Meditations and Reflections.

Influence of Tropical Climates on European Constitutions; with additions by J. Martin, late Presidency Surgeon, and Surgeon to the Naval Hospital, Calcutta.

Practical Researches on Gout.

An Essay on Indigestion.

Change of Air, or the Pursuit of Health and Recreation.

Influence of Civic Life on Human Health.

On Diseases of the Liver.

The Recess, or Relaxations in the Highlands and Lowlands.

Economy of Health, or The Stream of Human Life from the Cradle to the Grave.

Pilgrimages to the German Spas.

Excursions to the Principal Mineral Waters of England.

The Medico-Chirurgical Review.—[*London and Edinburgh Monthly Journal.*

THE WESTERN JOURNAL.

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GEORGIA LUNATIC ASYLUM.

We have looked through the report of Dr. David Cooper on the "Lunatic, Idiot, and Epileptic Asylum of the State of Georgia," and find in it much to interest the physician and philanthropist. This institution was opened on the first of November, 1842. It is capable, at present, of accommodating one hundred patients; but, when the buildings now in progress shall have been completed, will be spacious enough to receive five or six times that number. The Legislature of Georgia have appropriated, at different times, sums to the institution, amounting in all to $45,000. The State has the privilege of sending its insane paupers to the asylum, and persons who are able to pay are charged the very small sum of $100 per annum, "for board, medical attendance, clothing, &c." No institution in the world, of the same character, affords these accommodations at so low a price. Yet, from the report of the resident physician, we are fully persuaded that the accommodations will be of the best kind. The edifice is constructed upon the most approved model, and embraces every comfort which ingenuity has introduced into modern buildings, both as to warming, cleanliness, and comfort. The grounds pertaining to the institution are ample, and every facil-

ity for enjoying exercise in the open air, in riding, walking, or working in the farm and garden will be afforded to the inmates.

It is earnestly to be hoped that the Legislature of the State will carry on to perfection the noble work which it has commenced. Dr. Cooper demonstrates, in his report, that the asylum will be a great saving in money to the State. It shows, beyond all possibility of cavil, that the lunatics and idiots can be kept in a public institution at a much smaller cost than is now paid to individuals for their maintenance by the commonwealth. And in connexion with this exhibit, it presents a picture of human wretchedness, springing unavoidably out of the system of committing to individuals without responsibility the guardianship of the insane, at which the stomach, as well as the heart, turns sick.

The Lunatic Asylum of Georgia is situated within two miles of Milledgeville, of which it commands a picturesque view, in a district of country represented as being healthy, and within a few miles of the great central rail road. During the year, beginning November, 1843, and ending November, 1844, it had thirty patients, of whom four were discharged, three eloped, and one died. The cost of maintaining these, together with a steward and a matron, equal to nineteen persons for an entire year, was $450.

Dr. Cooper subjoins to his report a condensed history of all the cases in the asylum. We have room to notice but a single one of these, the particulars of which are extraordinary. A convict from the penitentiary was removed to the asylum in an idiotic condition, having been previously a lunatic. His appearance was eminently fatuous; from January, 1843, to May, 1844, he was never seen to take notice of a single incident, or heard to speak a syllable, never ate or drank unless food was given to him, never changed his place unless required to do so, and gave no heed to the calls of nature in other respects. Dr. Cooper on one occasion watched him for two hours without witnessing the slightest muscular movement of his face, even so much as the winking of his eyes. The slobber driveled from his mouth, and sometimes collected in his throat until he was threatened with suffocation. His abdomen swelled, showing signs of dropsy, and his lower extremities became œdematous. For these symptoms Dr. Cooper gave him hydragogue cathartics, and after their operation, and the removal of the hydropic appearances, he showed some signs of returning consciousness, scratching his leg,

and, after a time, asking for water and food. He continued slowly to improve, began to walk, and to obey the calls of nature voluntarily, and by the first of September was so far recovered, that he was able to effect his escape from the asylum, and to make his way on foot to his mother's house, a distance of one hundred and fifty miles.

This report is not carefully written, and is worse printed; but it presents to the people of Georgia a mass of facts in which they must feel the deepest interest. And not to the people of Georgia alone. It has interest for all who dwell in the Southern States. The institution whose brief history it records is another added to the asylums for this class of our afflicted, and is opened on terms so low that many, who have not heretofore sent their unfortunate friends abroad, will be able to avail themselves of its shelter.

INTRODUCTORY LECTURES.

Our notices of these productions must necessarily be brief and superficial, but we are not willing to let any with which the authors favor us pass entirely unnoticed. Many of them abound in valuable thoughts, and are written in a pure and elevated style.

Professor Harrison, of the Ohio Medical College, selected as the theme of his discourse the "Sources, Evils, and Correctives of Professional Discontent"—a subject in which all of our readers necessarily feel a lively interest. It comes quite home to their business and bosoms, and if the lecturer can point to a safe, certain, and pleasant remedy, he will receive the abiding gratitude of the profession. We cannot say that he has discovered a specific, much less a *panacea*, but we take great pleasure in saying that his sentiments are admirable, and although his style is not free from the tincture of which we have sometimes spoken, his lecture will exercise a beneficial influence upon those who listened to it, as it was delivered by its eloquent author, and will fortify and encourage any desponding or querulous member of the healing art who reads it. Whatever may be thought of some of Prof. H.'s theoretical views on medicine, there can be but one opinion respecting his sentiments on moral and religious subjects. They are just and elevated, such as become a teacher in his responsible station.

Professor Linton, of the St. Louis University, delivered the introductory lecture for his colleagues this season, and we have had the pleasure of perusing it. Much of the discourse is taken up with a eulogy on chemistry, which Prof. L. holds should be taught in every large city "at the public expense." We hope the eloquent remarks of the professor will inspire his pupils with a just admiration for this science, which, we suppose we are fully warranted in saying, is generally very much underrated by students and practitioners of medicine. Towards the close of his lecture the writer becomes metaphysical, and at last controversial. His school has been assailed, and he claims the right of defending it, which he does in a right manly spirit. He compliments the "Sisters of Charity" for the self-sacrificing spirit with which they devote themselves to the afflicted, one of the results of which is the erection of Hospitals and Asylums in which medicine is most advantageously taught. If he manifests more warmth of feeling, in some passages, than seems consistent with good taste, let it be remembered that he was speaking in defence of an institution in which his whole soul is enlisted.

Professor Bedford's introductory lecture in the New York University has been for some weeks on our table. It is devoted to the defence of Obstetric Medicine, and an exposition of the responsibilities and duties of the accoucheur. The principles of action are laid down, and then enforced by examples. Some of the illustrations are shocking enough. One woman is mentioned, whose uterus was ruptured by the violence of the operator, the small bowels escaping at the rent, while the body of the fœtus was removed, and the head left in the cavity of the womb! The lecture is rendered graphic and practical by the history of other cases, and, altogether, is a vivid and instructive discourse.

A SUIT FOR FEES BY A CLAIRVOYANT.

The Boston Medical and Surgical Journal copies from a New York paper an amusing account of an action brought by a clairvoyant for medical services. Livingston and Davis the plaintiffs, practising upon the plan of medical clairvoyance, had attended the family of David Jackson, examining and prescribing for his wife and daughter. The bill claimed was $50. Davis, according to the

witnesses, was put to sleep, by his associate, when he proceeded to examine the patient, and describe the remedies to be administered; these being written down were invariably given, Livingston himself never examining the patient, and the clairvoyant doing so only in his mesmeric state, and with a handkerchief over his eyes.

The court decided in favor of the defendant, principally, it is stated, "on the ground of the deception and fraud of the system."

MYSTERIES OF TOBACCO.

This is the title of a little work published by Wiley & Putnam of New York, from the pen of the Rev. Benjamin I. Lane, and although claiming a paternity other than medical, it comes within the purview of the medical critic. It is an argument against tobacco, and in several chapters discusses the nature of "the nauseous weed," its influence upon the body, the mind, and the morals; the illusory influence of tobacco, its filthiness, and its expensiveness. But *cui bono?* "To write against tobacco, with its mysteries and its luxuries," is, indeed, "an unpromising business." The author of this little book feels it to be so, but he is nerved with the hope of doing good, and so "raises the note of warning, and spares not." He gives, first, the analysis of tobacco; then some experiments by Fontana upon animals showing its poisonous character, and, lastly, its medicinal qualities. In the chapter on the physical effects of tobacco, he cites a cloud of witnesses to prove its injurious influence upon health. Its influence upon the mind he thinks is also pernicious; for he does not agree with the physician who was asked by a lady, whether he thought snuff injured the brain of those who use it, and who replied, "no, for nobody that has any brains uses it." This is not quite true; but it is a fact, he adds, "worthy of note in the history of tobacco, that its use began among the ignorant savages."

The fault of this well-meant volume is, that the picture drawn in it of the mischief done by tobacco is exaggerated. The author promised "nothing to extenuate, nor set down aught in malice," and the truth is certainly revolting enough; but he has not stuck to his promise. He has not been satisfied to show the evils of chewing and smoking in their full natural size—he has held up to the eyes

of his readers a magnifying glass, by which their proportions become, not hideous, but ridiculous. Still, we wish every smoker and chewer would read the "Mysteries of Tobacco," that they might see how the indulgence appears to, at least, one sensible, eloquent, and learned man. Or rather, we wish, with Mr. John Quincy Adams, to whom the volume is dedicated, who was once addicted to the use of tobacco, "that every individual of the human race afflicted with this artificial passion, could prevail upon himself to try but for three months the experiment which he made, sure that it would turn every acre of tobacco-land into a wheat-field, and add five years of longevity to the average of human life."

We thank the publishers for this spirited tract, which, with several other volumes to be noticed, we have received through Messrs. Maxwell and Prescott from the same publishers.

VESTIGES OF CREATION.

A third edition of this fashionable work has been called for by the American reading public, and is issued by Wiley & Putnam in a beautiful dress. These gentlemen have shown a becoming care for the orthodoxy of their countrymen by sending abroad the antidote bound up with the poison, in the shape of an admirable critique, from the North British Review. The former edition contained a noble defence of the truth, in a preliminary article; this gives the *coup de grace* to the sophistry of the Vestiges in an appendix. We examined the doctrines of this specious volume at considerable length, some months ago; since writing our article we have met with the following anecdote respecting it in an Edinburgh paper, with which we commend it to the curious of our readers, as a "scientific romance" of rare interest:

"We have been told that on its first appearance it formed the subject of a rather curious conversation between three scientific gentlemen,—a zoologist, a geologist, and an astronomer. 'Wonderful book!' said the astronomer, 'it reads like a novel, but its astronomy is wretched.' 'Say you so!' exclaimed the geologist, 'why I read it with very great interest indeed, and found nothing very bad in it except its geology.' 'And I,' said the zoologist, 'have also read it with interest, and liked its geology and astronomy very much, but found its zoology mere nonsense.'"

EPIDEMIC SMALL-POX.

Small-pox has prevailed to a very unusual extent in this county for several months past. In every quarter of it cases have arisen, and excited much alarm, although, for the most part, they have assumed a mild form, the subjects having previously had the disease, or been vaccinated. People are strangely negligent of vaccination, and alarms of small-pox are necessary, now and then, to awaken them to a sense of its importance. The disease is attended with very little danger or suffering, in persons who have been impressed with the vaccine virus. Such cases scarcely require medical treatment, and are followed by no disfiguration. The profession ought to take advantage of the present excitement on the subject, to diffuse the prophylactic as universally as possible.

BOOKS RECEIVED.

In addition to the works already noticed, we have received from Wiley & Putnam, through Messrs. Maxwell and Prescott of this city, the following works:

Gray's Botanical Text Book, a neat duodecimo volume, illustrated with numerous wood cuts, of 500 pages. This, we believe, is esteemed the best elementary work on botany extant in our country.

Newnham's Human Magnetism.—This is an attempt to show the utility of the application of mesmerism to the relief of human suffering. We confess our want of faith in its efficacy, but nevertheless shall give the author a hearing. We shall look into his "dispassionate inquiry" in a future number. Meantime, those who are curious on the subject will find it discussed in this work by one who is a thorough convert to its mysteries and its magic.

Fowne's Prize Essay.—This is a charming work; we have read it with the greatest pleasure. It combines every element of interest —a simple, lucid style, scientific details novel to all but the professed chemist, and views of the arrangement and constitution of matter which fill the mind with admiration and delight. The subject is "Chemistry as exemplifying the Wisdom and Benevolence of God." A more fascinating volume no one cold wish to possess.

Lyell's Travels in North America.—This is a most captivating book of travels, abounding in just and accurate observations, liberal

views, and scientific information interesting to every class of readers, especially those who have a taste for geology. Mr. Lyell is one of the most gifted and learned foreigners who has traversed our great continent, and his remarks on its configuration and structure, its fossils and its animals, its rivers, lakes, and estuaries, its institutions and people, will be found worthy of his high character. We hope to find room, during the summer, for an extended notice of his Travels.

To our friends, Lea & Blanchard, we are indebted for several works of great value, most of which we shall be unable to notice, at any great length, in our present number. These enterprising publishers have issued new editions of *Meigs' Velpeau's Midwifery*, and *Churchill's System of Midwifery*, which standard works will be found at the bookstores of Maxwell and Prescott.

Durlacher on Corns, Bunions, Diseases of the Nails, and general management of the Feet.—This is the first treatise on these ailments, so far as we are informed, that has issued from the American press. It is from the pen of the '*Surgeon Chiropodist*, by special appointment, to the Queen,' and appears to be scientific. We shall notice it hereafter. It is from the press of Lea & Blanchard, who take care never to send forth anything trashy.

DR. BORLAND'S ESSAY ON MILKSICKNESS.

This is a neatly printed pamphlet of 45 pages, octavo, on a subject of much interest. The paper was originally drawn up for the medical society of Memphis, where the author then resided. Dr. Borland does not profess to add anything from original observation to our previous knowledge of the subject, but merely to act the part of a compiler, bringing together and comparing the observations of different individuals. We may remark that his opinion, carefully formed, is, that the disease arises from a *mineral poison*, which may be derived directly from the soil or water, or indirectly through vegetables; that this poison may be imbibed by more than one kind of vegetable, and that in all researches hitherto made, the *cryptogams*—mushrooms—have been too much neglected. The pamphlet displays extensive reading, and is very well written. It is dedicated to Dr. J. R. Buck, of this city.

We cannot but congratulate Dr. Borland on his return to professional engagements after an absence of two years—a return which he thus signalizes. It is always to us a matter of deep regret to see an accomplished physician wandering amid the mazes of politics, or sauntering along its highways and byways—it is a mingling of things divine and human very foreign to our fancy. We trust our friend will for the future let Polk and Clay and the aspirants for the Presidency, together with Texas, Oregon, and California, all go by the board, and turn his attention exclusively to curing disease, and raising soldiers for the State. C.